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THE RAILROAD MAN'S MAGAZINE

FEBRUARY

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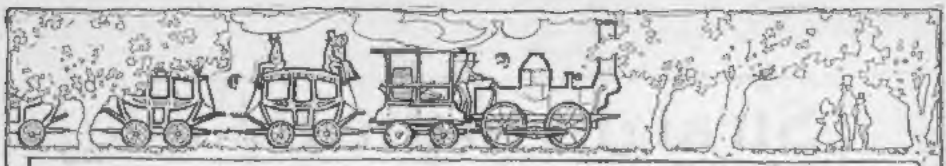

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175 Fifth Avenue, New York City

THE RAILROAD MAN'S MAGAZINE

Vol. VIII. FEBRUARY, 1909. No. 1.

In the Switch-Towers.

BY T. S. DAYTON.

IT seems a very simple matter to sit in a Pullman and watch the switch targets of a great terminal yard slip by. We can all do that without the least trouble in the world, and without even thinking that it is very much of a feat.

Yet our train must be piloted across a maze of tracks, interlocking here, there, everywhere, past other trains, puffing in or out, over switches, around curves, and so into the great train-shed at the head of the tracks. How is it done? Ask the men who stand at the levers in the switch-towers. They are the sentinels who guard the tracks when the trains come in.

The Men in the Towers Who Throw the Switches To Let the Travelers Safely into or out from the Great Terminals.

N the signal-towers of a great railroad passenger terminal to-day the possibility of human error is practically eliminated. Marvelous mechanical devices have replaced man's judgment and man's muscle. Little levers a handbreadth long, handled as easily as the stops on an organ, control the mighty forces of the electric currents and compressed air that set the signals, and not only move the switches, but, by locking and interlocking, prevent others from opening, thus making collisions impossible. Where judgment might falter, the machine is unfailing.

Twenty years ago an army of men, swarming over the tracks in each great passenger terminal, working through all conditions of wind and weather, moved the switches by hand. In those days the switchmen were the terminal's masters.

Athletes of the Tower.

Later, in towers, burly men manipulated great levers, hurling them over and back again by brute force, moving switches far away by pure muscle, leaping back and forth in a great room perched high above the tracks. This was the manual system, and it represented vast progress. It is still in use in some terminals where certain peculiar local conditions prevail. It was in general use even so lately as half a dozen years ago.

IT WAS MUSCLE THAT MOVED THE SWITCHES IN THE OLD DAYS.

There followed, in one signal-tower after another throughout the country, a machine of little levers. It moved the switches and set the signals by compressed air. Each tower was captained by a "boss" or director.

He whose tower was nearest the starting-point of the trains was the ruler over the rest. He sat where he could watch the tracks, and continually shouted orders to the men at the signal-machines—the men pulling the little levers.

He talked in numbers, like a football captain coaching his team in a difficult play, and often quite as excitedly. For example, "13 to 42 K" might mean to hold back a train that was inbound so as to give a starting train the right of way over the tracks.

This system is still in use at many terminals. It does the work with ease, despatch, and safety. It gets out innumerable trains expeditiously.

The next step forward was not so very long ago. The compressed air might break down, so its force was supplemented in the machines by another invisible but more powerful element, electricity. This is the electropneumatic system that so many terminals are using.

A later word, though, appears to have been said. In some great terminals where electricity can be had cheaper than compressed air, or owing to other local conditions, electrically actuated signals and switches alone are used.

Narrowing the Danger Zone.

But no matter which of the several modern systems is employed, the struggle of the inventors has been toward the elimination of the chance of human error. They have succeeded in this, but in so doing have almost eliminated man as well in the handling of the switch and signal machines.

In the signal-towers of less than a decade ago it took eight men, heaving back and forth the huge levers, to do the work that two now do as easily as turning the knob in a door. The demand is supplied, apparently, for systems that will switch and signal perfectly with absolute safety against mistakes, so the only open way of progress now would seem to

be toward devices which will need even fewer men to control the acres of tracks and switches in a vast terminal.

Perhaps the day will come when, instead of four men in a tower, there will be two, and then one, seated alone, swiftly touching buttons banked like typewriter keys, controlling and operating every switch in a wide, far-reaching zone.

In a typical great passenger terminal, like the Grand Central Station in New York City, the director of the signal-tower no longer shouts orders to his subordinates. He sits quietly awaiting the unusual, the unexpected—some emergency.

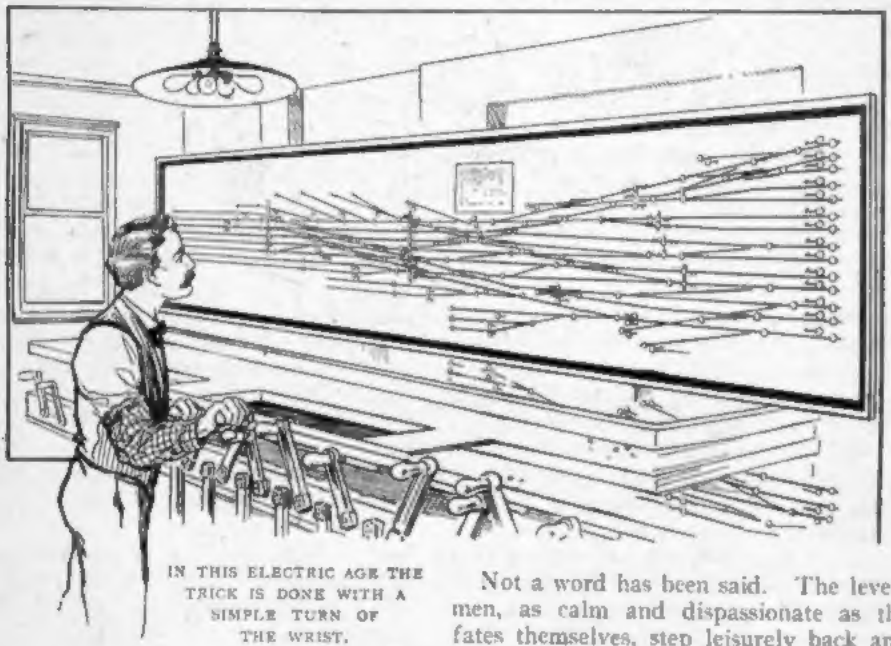
Four men in the rush hours, two when the movement of traffic is light, stand before a long row of little handles that stick out in an even file from what at first glance looks like a long breast-high box running through the center of the room.

Over each of these handles is a number corresponding to the number of the switch and signal that it moves. Suspended overhead, on a level with the levermen's eyes, is a case with a front of ground glass about as large as the top of a steamer-trunk.

On this is painted—drawn to mathematical scale—a map of all the tracks in the zone controlled from the tower. Each track is numbered or lettered to correspond with the levers on the control-box below.

When the rails are clear, the strip of light between the narrow lines indicating the tracks in the diagram is clear also. But when an engine or a train starts from the terminal, a spot of red about as large as the end of a lead-pencil begins to slide swiftly along from point to point.

The levermen look at this, pull a handle here and there, then another, until the red spot, which perhaps is one of the crack limiteds of the line, thunders by outside and the light slips noiselessly off the edge of the glass overhead.



IN THIS ELECTRIC AGE THE TRICK IS DONE WITH A SIMPLE TURN OF THE WRIST.

Not a word has been said. The levermen, as calm and dispassionate as the fates themselves, step leisurely back and forth, each in the six-foot section which is his territory, pulling a handle here and another there, glancing out of the window and up at the illuminated glass with the spots of red sliding across its surface. The director of the tower sits looking out over the tracks.

The telegraph-instrument in the corner chatters now and then, a buzzer hums for a second like an imprisoned bee, a bell sounds snappishly. Only the mechanical things seem in haste. Apparently the men do not listen; really they are continually alert with ears and eyes.

All of them are experienced operators.

Every sound has a meaning for them. The director's hand rests on a telegraph-key at his side. It clicks for a second's space.

One of the levermen glances at an express-car hitched to an electric engine that has been part of the scenery outside the window for perhaps ninety seconds. He touches a lever, and they glide away. The leverman heard the director tell the tower to the north that he was going to send them out, and he needed no further order.

There is but one book in the room. That is the official time-table for use in the signal-towers. It is covered with dust.

Order the Tower's First Law.

The exact moment that every in and out bound train should move is indelibly fixed in each leverman's memory. Signals and messages from the next tower, and others up the line, tell them what is bound their way. The outgoing trains must move on the dot.

The track is supreme. In most other great terminals the nearest signal-tower waits for the station to say that the train is ready to move. At the Grand Central, on the instant that the time-card calls for a train to pull out, the towermen set signals and switches without waiting for advice that she is ready.

The train starts simultaneously, knowing that the way is clear. But the track brooks no delay or excuse. The rights of the track are preeminent.

It is when storms or accidents derange the train-schedule that the seemingly idle director in each signal tower looms large. On such occasions he becomes, to all intents and purposes, the trainmaster whose word is law in the zone controlled by his signal-levers. At other times, though his responsibilities are heavy, his labors are light.

The levermen's work, through long practise, becomes almost automatic. If one of them should pull the wrong lever, the worst that could possibly happen would be that the train would get on a vacant track where it was not wanted, but where it would be safe until the error was corrected.

In most combinations, however, the locks and interlocks of the maze of tracks are so arranged that there is but one lever—one key—to the right combination. If the wrong lever was pulled, it would automatically fail to indicate that the switch had been shifted and the signal set, which would immediately call the leverman's attention to the error.

This is but one of perhaps a score of ways in which possible errors are guarded against. The signalman's path of duty is as clearly defined as if it lay between two high board fences which it would take more than an ordinary effort to climb over.

If he makes one mistake, the machine tells him so and keeps him from making another. About the only way he could possibly go wrong would be by the destruction of the machines themselves.

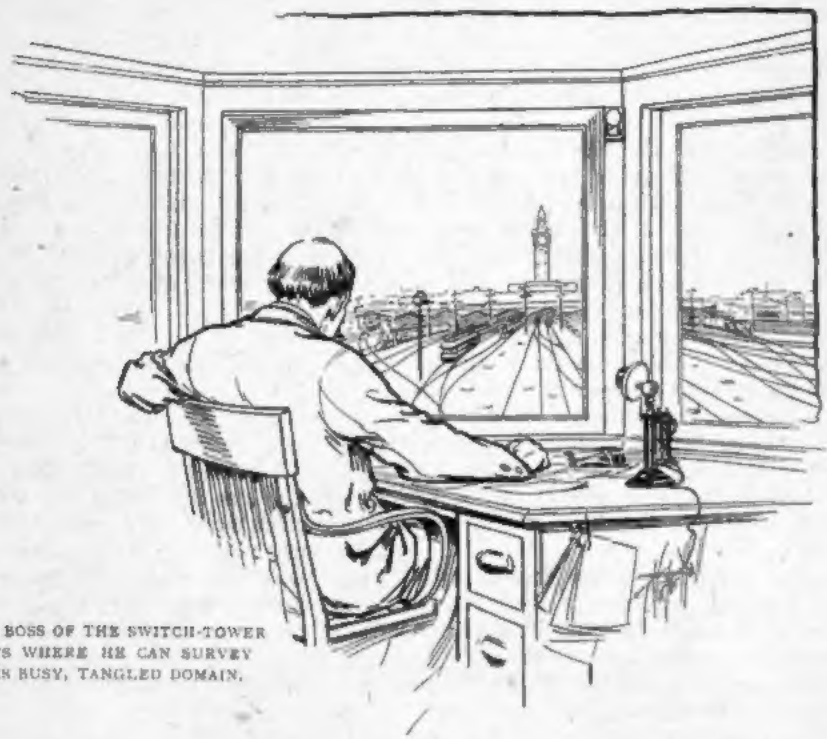
Two seconds is allowed for a signal to "indicate"—that is, for the faint click and final settling into place of the little handle which shows that the switch and signal are set. Should the switch-point be over a sixteenth of an inch away from the rail, instead of close against it, the machine would indicate that the switch was incomplete, and a "maintainer" would go hurrying from the nearest tower to remedy the fault. The average time for repairing switches that do not work properly is said to be two minutes.

Engineers Exercise Discretion.

Even though the signals are known to be absolutely accurate, the engineers running in and out of a great terminal are not forced to rely on them blindly. It not infrequently happens that, owing to some sudden exigency of traffic, the tower director will set the signals for an outbound train, for instance, to go over a route entirely different from the accustomed one.

The engineer immediately notices the change. The signals indicate a clear way across the maze of tracks, but if he has any fear or doubt in his mind, if he may think for an instant that by the millionth chance something has gone wrong, he stops his train and sends to the nearest tower to investigate and get a confirmation of the signals. His train is safe meanwhile, because the track behind is closed by a stop-signal and the switches locked.

In former days, before the illuminated diagram of the tracks with the shifting dots of red or some similar device to show the moving trains, came into use, the men in the signal-towers had to depend on what they could see from their windows to supplement their knowledge of the movement of the trains as indicated by the levers.



THE BOSS OF THE SWITCH-TOWER SITS WHERE HE CAN SURVEY HIS BUSY, TANGLED DOMAIN.

During severe winter storms, when the air was thick with snow, it was necessary to station men at various points in the yard to telephone information to the towers as to the whereabouts of the trains which came creeping in. Nowadays, with these graphic devices for automatically showing each second the exact location of every item of moving power and rolling-stock, there is no necessity for the signalmen ever taking a look at the tracks over which they rule.

They would get along equally well if they were absolutely shut off from every view of the world outside. Were it not for convenience' sake in locating the signal towers centrally in the zones they control, the work could be done quite as effectively from some office-building miles away as from the center of the yards.

When Jack Frost Reigns.

The only real danger to the switches—something that, up to the last year or so, has been an annual source of trouble—has been their clogging with ice and snow during the winter. In the old days, forty to seventy-five men were kept busy continually during cold and stormy weather sweeping out and cleaning the switches so that they would work properly.

Now, in some of the great terminals, the residue from the Pintsch gas-tanks, a heavy gas, is put in cans constructed for the purpose and ignited. Men go about with these to the freezing switches. The flame shoots out and licks up the ice and snow so swiftly that it does not melt and run away to freeze again, but dissolves in vapor. Nevertheless the heat, though intense, is so quickly applied and withdrawn as not to affect the temper of the steel.

It is interesting, by way of contrast, to

know how the switching and signaling were done in the Grand Central terminal as recently as six years ago. Then, in the signal-towers, there were no little handles that a child could pull back and forth. Instead, there were lines of long-handled levers ranged side by side in the switch-towers. They were painted black, yellow, red, and blue, and the men who manipulated them had to be men of brawn with powerful arms.

But before these towermen could touch one of these levers they had to master every word of a thick, yellow-paged pamphlet, the official guide issued for the switch-operators. This book contained eight hundred and thirty-three combinations, and its text of signs, capitals, and numbers was as unintelligible to an outsider as an obscure foreign tongue.

The signal-tower of those days was a noisy place. There were the continual grindings of the switch-locks, the clanging of the plunge-bells, the shouting of the director of the tower through a megaphone to men outside in the yard, and his continual high-voiced directions to the men leaping back and forth at the long levers.

In an adjoining room several telegraph-operators sat busy at their instruments. Sometimes the noise would be so great that the director would put down his megaphone and chalk up the directions to his men on a huge slate.

Those not distant days were in the time before human machinery had been supplanted by that of iron and steel. The chances of error and accident were immeasurably greater than they are now, and it was an unusual week that did not bring one or more close shaves that made the switchmen at the levers tremble after the danger was over.

Men Picked for the Job.

Then, as now, the men in the towers were picked carefully, and a combination of physique, brains, and experience was the ideal most sought after. Nowadays physique is not so essential. Though a man must be physically sound, he need not be of a certain height or weight.

He must, however, have had long experience gathered at other points on the same company's lines, not only in handling electric switches and signals, but all of the other kinds as well.

In most large terminals, when one system is abandoned for another that is considered an improvement, there is nearly always sure to be some portion of the yards where the conditions are peculiarly adapted to the use of the system that is being superseded. Therefore the old system is retained for that particular zone.

There is more than one passenger terminal, for instance, which has in daily use, in one portion or another of its yards, everything from the old hand-thrown track switches up to the latest electrical devices. Before being put in the important towers of the terminal zones the new man has to go through a thorough course of tutoring on the movement of trains there.

Long Way to the Top.

So apt has his long previous experience made him, however, that in most cases fourteen days of this teaching are enough to qualify him for a place at the little levers which control the tracks over which may pass nearly eight hundred trains every twenty-four hours. Even then he is not permitted to enter upon his new duties unless his instructor has vouched for him unequivocally to the head of the department in charge of the towers.

To become a director of one of these signal-stations of a great terminal is yet a longer and more arduous journey. Most of the directors are men who have spent years in the service of the same system. Like their subordinates, they are skilled telegraphers, and even in a greater degree than their subordinates, perhaps, are they expert electricians and mechanics.

But even these scientific attainments alone never lift a man into the bay-window of a signal-tower where the outside world from the car-windows sees him apparently ruminating at leisure. The one essential qualification is swift and sure judgment and decisions in emergencies.

He must be able to solve any problem of moving trains in a congested terminal, and to do it in a space of time that can be measured only in fractions of a minute, for in the signal-towers the unit of time is seconds.

HIGH FLYING AT EAGLE PLUME.

BY EMMET F. HARTE.

What Goes Up Must Come Down, but It's Liable To Take Its Own Time About It.

JUST before the P. and P. loses itself in the gorges and chasms of Puma Pass, the beetle of whose beetling crags and the frown of whose frowning walls being only and exclusively equaled by the yawn of its yawning gulfs, you can stop off, if you've got a stop-over ticket and so desire, at Eagle Plume. Eagle Plume is some up in the air, seventy-eight hundred feet above the level of the complaining seawash on the sand, according to the observations of Uncle Sam's experts, a distance which if you could look straight down would cause you to reach for something to hold to pretty severely; however, it's perfectly safe at Eagle Plume.

It is a flat, sandy, somewhat dry town, nestling in the dimple of an elbow of the Rockies, a bit below timber-line and some above sheet water; the air is thin and shy on humidity, but pleasant to the taste, and is supposed to put the everlasting finish on those small but highly domesticated organisms known as bacilli tubercle.

Honk and I, neither one being lungers so it could be detected, derived no benefit along that line, but found the air very bracing and beneficial to the appetite; it sharpened it up like running it over a new oilstone, and kept one or the other of us, and sometimes both, busy cooking grub in the medicine-house.

"What are you fellows doing with all that truck out there," the Old Man asked when Honk wired him a requisition for about half a car-load of supplies, "starting a restaurant or prop'gating tapeworms?"

"We're dieting," said Honk. "Add a kit of mackerel and a sugar-cured ham to that, will you?" They did it, too, for hadn't we done more to attract transcontinental passenger traffic to the P. and P. that year than anything that could have been done short of clipping a couple of days off the schedule, which was a thing not in the realm of possibility?

We had made the eight hundred and odd miles of main line from the river to this last stop of ours at Eagle Plume a panorama of insistent appeals to the art idea. Each succeeding station across the long stretch of forest, field, and forlorn plain was a point of interest. Our parks and floral embellishments were all different; here gurgled a waterfall over a fern-grown, cement-block precipice, and there played white rabbits in the moonlight where the air was filled with the fragrance of sweet peas.

Ivy-vines of our planting were mounting the red sandstone sides of the depots at Holy City and Sidon and Deer Lodge, and peach, pear, and persimmon trees were growing like weeds at dozens of places. Of flowers we had left a picturesque, never-ending clamor of bright colors in our wake, and the fame of our road had gone forth wondrously.

"Try the P. and P.; it's something different," people told other people. Other lines might boast of the awe-inspiring grandeur of peak and pass, of the engineering miracles across colossal barriers, or the historic interest of battlefield or ancient city, but for a continuous performance and every number a head-liner we had 'em waiting at the box-office.

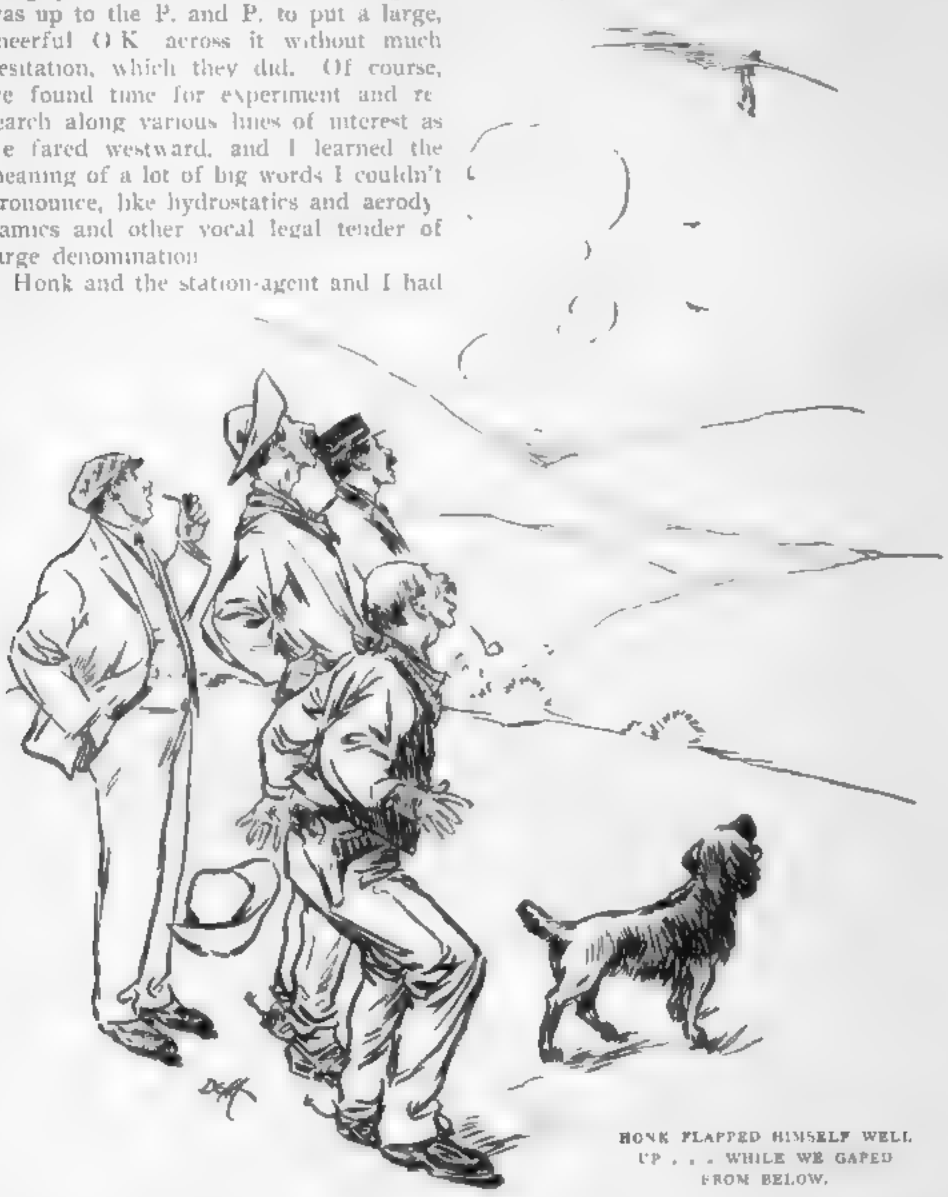
Other roads got down to carrying the

mails and doing local service; we handled the coupon passengers. So when we ordered canned veal loaf and lemon-cling peaches to eat while working, it was up to the P. and P. to put a large, cheerful O K across it without much hesitation, which they did. Of course, we found time for experiment and research along various lines of interest as we fared westward, and I learned the meaning of a lot of big words I couldn't pronounce, like hydrostatics and aerodynamics and other vocal legal tender of large denomination.

Honk and the station-agent and I had built a gas-lighting and heating plant for the railway property at Eagle Plume while waiting for shrubs and sod, one of those gasoline and water gas-plants where you let a weight down into the tank to make the pressure. We also continued some experiments with a piece of steam pipe and a cask of water, testing atmospheric pressure and working on a ram or something Honk hoped to make run at enormous energy thereby.

"Why don't you never fly around with the Albatross any more?" I asked him one day. "You'll forget how, if you don't watch out."

"That proves telepathy," said Honk. "I was just going to mention that myself. I've been studying about the proposition of soaring like buzzards and eagles and so forth. Flying, as a proc-



HONK FLAPPED HIMSELF WELL UP . . . WHILE WE GAPED FROM BELOW.

ess of flapping your wings and getting up into the air, is too hard work for it to ever get very popular.

"That's one reason a hand-car hasn't had much vogue as a conveyance. But say you get up about half a mile high and lock your wings or your aeroplane or whatever you're traveling in, or by so the weight of the body pulling down operates against the slant of your planes upward, and what do you have if adjusted properly?"

"I'd have a fall of some two thousand six hundred and forty feet," I said, "and they could put up a headstone where I lit. What will you have?"

"Pooh-pooh!" said Honk. "I'd soar off without the least effort, and as far as I liked. It's the same principle as the kite, only gravitation furnishes the pull of the string. How's your chewing?"

So thereafter, for a few days, Honk was busy with the Albatross, while I read baseball news and entertained myself with the phonograph, what few minutes I had to spare between cooking and eating. Housework is a regular drudge

One day, Uncle George Jackson, conductor on 76, mentioned that he knew a flying-machine man at Ogden by the name of McJimpsey.

"What success is he having?" asked Honk

"I can't say," said Uncle George. "I'll look him up next trip."

In the meantime Honk perfected his interlocking clutch and steering apparatus on the Albatross, and one calm, clear day made a trial flight. It was a success, though only witnessed by the station-agent, two cow-punchers, a black dog, and myself.

Honk flapped himself well up, locked the wings, and drifted off in a big, wide, lazy circle like an eagle in the clear, still air, while we gaped from below. It was one of the few times when a cowboy was observed to have nothing to say Away he soared, slanting the big wings upward and gradually rising.

We yelped and waved our hats, and he kicked his feet in reply, his hands and arms being harnessed to the wings. There being not a breath of wind to throw him off his balance, he could have circled around all forenoon as easy as sleeping when you're sleepy; but he got hungry in about half an hour and came down to eat. The audience gathered around and displayed its awe and enthusiasm, while I helped unharness the Albatross. She was sure a success.

"I've thought of one other improvement," said Honk, as we adjourned, "and that is a telephone attachment. Suppose, for instance, I was taking observations of the approach of a storm or a prairie fire or a runaway engine or a vigilance committee or something, and you were cooking the supper and wanted to know whether I'd have my eggs straight up or over. I'd have to come down, wouldn't I? Sure.

"Well, we'll just attach a case containing a thousand feet of small wire on a reel, put in a dry cell, and also a clock-work business which will wind up the reel when we're through talking. Simple, isn't it?

"You get out a pillow-case and wave it. I drop down the telephone; 'Hallo!' you say, 'just had a wire saying Uncle Sam has turned down a challenge from the Japs to fight our fleet; what do you want for supper?' and I answer: 'Boil some butter-beans and watch out for a coyote sneaking up on that hen you've got tethered to the south side of the coach.'" So he went ahead and perfected his telephone attachment that afternoon.

The next day, when Uncle George dropped off the east-bound mail at Eagle Plume and sauntered up to the telegraph wicket, as was his habit, a nervous looking, red-faced little man accompanied him. This little man also had a neatly trimmed mustache and was carrying a grip as big as an old-fashioned clothes-cupboard turned endwise

"Shake hands with Mr. McJimpsey," said Uncle George. "I told him about you fellows, and he come out to get acquainted. He's nutty about flying machines, hey, Mac?"

"Glad to meet you," said the stranger. "Guess that's right. I'm very much interested. I'm working on an aeroplane myself, which, if it goes at all, will go ninety an hour."

"You can't beat that, can you?" said Uncle George to Honk.

"The faster, the safer," said Honk.

"at least with an aeroplane. I don't go much on 'em. You don't see no birds built like a double deck quilting-frame, do you? No. Birds fly, don't they? Whether the wind blows or not? Well?"

"That's right," said friend Mac "If you can get the secret of the birds, you can fly all right."

"It's no secret," said Honk; "they do it openly. There goes one now; watch how he does it

"Come on over to the medicine-house, Mac," I said. "So long, Uncle George! We're going to have rainbow trout for dinner." And I took charge of the enormous suit-case.

Our new friend wasn't tickled over the outfit or nothing? I should say he was. He just cooed and gurgled. Our joint was his own kind of an environment

"I've got somewhat of a laboratory myself," he said, with his mouth crammed with potato-chips, "up in the attic at my boarding-house, and I've made some interesting experiments in chemistry. Had an explosion once which tore off quite a patch of the roof, but I had to give up that kind of research on account of the timid ones among the other boarders," with which and similar experiences he won his way into our esteem until we got so deep in a discussion about the transmutation of metals that we let the dinner dishes go unwashed and ate off the same ones for supper that night.

"This is fine air," said little Mac next morning, filling his lungs and puffing out his red cheeks like a wine-sap apple on the back platform of the medicine-house. "I feel like a lark myself."

HE DANCED UP AND DOWN AND REVIED LIKE A KID AT HIS FIRST FOURTH OF JULY CELEBRATION.

"Horace," said Honk, who was making up the bunks, "show Mac the snow on Big Spine Mountain when the sun hits it, and see if he has the soul of an artist."

"He has, all right," I said, for little Mac just put his hands together and gazed speechless, holding his breath "Wonderful, wonderful!" he exclaimed finally.

"Big Spine Mountain has the reputation of being unscaled by any white man," I told him. "It's only some eleven thousand feet high, but pretty rugged and precipitous around the base,

so nobody has ever got to the second plateau, they say."

"There would be a chance for our friend Simpson to use his flying machine," he said.

"Nothing up there I want," said Honk.

One of the night freights set us off a car of grass and trees, so we didn't have any aviation that day, but little Mac hopped right in with us and helped dig the holes and plant all the trees and shrubs like a sport, even if he did acquire a few blisters on his hands.

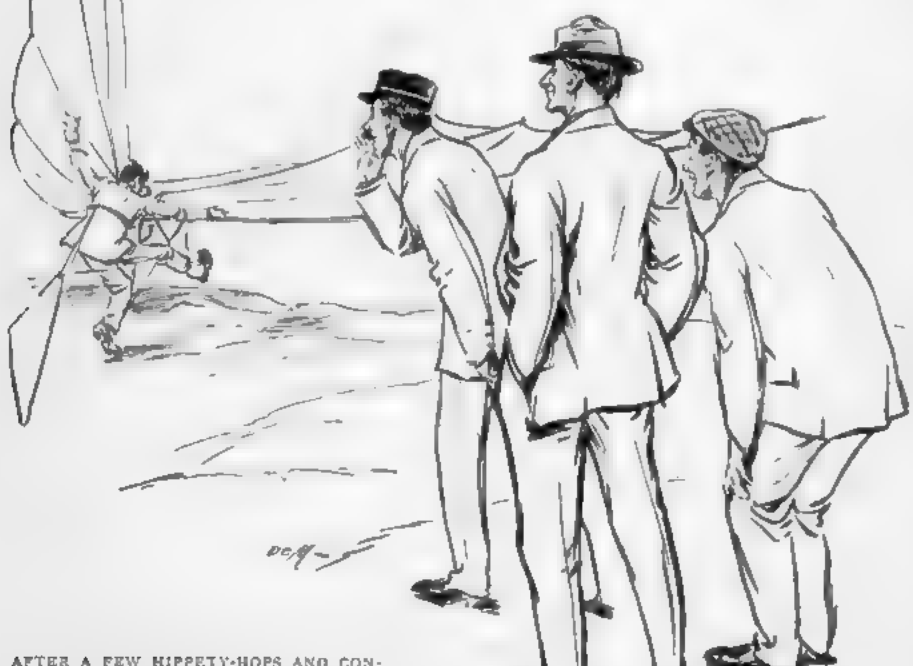
"We'll let the sodding go a day or two," I said, "now we've got the trees out; we don't want to work our company to death. Honk, you and him get out the Albatross in the morning and do some of those wonderful stunts you talk about."

That night we kept the phonograph going until midnight. I didn't know we really had acquired so many records. Little Mac's favorite was some kind of a team-sketch about a fellow and a girl walking in the garden, and "If he kissed her, would he have to ask her pardon?" "Great!" he said. "Run it through once more."

Next morning we had the big doings. We buckled the wings on Honk, fixed the triggers of the telephone apparatus so he could reach them with his teeth and work the reel or the wind-up mechanism at will; then away he went, flapping up—up, like a crane. Little Mac went from pink to purple with admiration and excitement; but when Honk locked his wings at about eight or nine hundred feet and commenced to soar in circles, I thought we were going to need a doctor for our company.

He just danced up and down and ki-yied like a kid at his first Fourth of July celebration. Finally Honk sailed around in a small circle right above us and cut loose the telephone communicator, which came jiggering down like a spider on the end of a web and dangled where we could catch it.

"Hallo!" said little Mac. "Fine, fine! Wonderful! Is it? Well, I should



AFTER A FEW HIPPETY-HOPS AND CONSIDERABLE COACHING, HE FLEW ABOUT A TRAIN LENGTH WITH HIS LITTLE PUDGY LEGS STUCK OUT IN FRONT OF HIM

say! Wonderful! One thousand feet? I don't doubt it. Wonderful! No more aeroplanes for me. Absolute control. We can see that. Wonderful! All right; good-by."

And up went the telephone, zippety zip! When Honk unlatched the wings and flapped down as unconcerned and easy as stepping out of a hammock, after about half an hour, little Mac was shaking hands with himself and sputtering like a motor-cycle. He was hysterical with enthusiasm.

"How'd you like to take a trip yourself?" asked Honk.

"Fine!" said Mac. "Fine! Wonderful! Couldn't think of anything I'd like better. Do you reckon I'd fall and break the machine?"

The little cuss didn't think about what it would do to him if he fell

"I should say not," said Honk. "You couldn't fall if you tried. Can't anybody hold their weight with their arms? And isn't your weight all below your arms?

"There you are! You can't turn over and you can't help supporting yourself, so you can't fall. Come on and help buckle it on him, Horace."

It wasn't anything to me who flew, just so it wasn't me, so we attached little Mac to the Albatross; and, after a few hippety hops and considerable coaching, he flew about a train length with his little pudgy legs stuck out in front of him, while Honk and I and the station-agent, who had joined us, followed along after him and laughed at his antics. He came down stiff-legged, with the sweat squirting out of him like steam out of a leaky hot water bottle.

"I'll try it again," he said. "It's wonderful!"

He was a physical wreck when night came, but he had learned how to fly the Albatross pretty well for a beginner, and was about as proud as a one-hundred-and-thirty five-pound enthusiast can get without exploding. He couldn't hardly wait until morning, he was so anxious to get up in the air again, and Honk said he grunted and puffed and squirmed in his sleep all night.

He was up bright and early. "This is the big day," he said. "This is the day McJimpsey soars aloft"

"Take a lunch with you and stay all day," I said. "You'd just as well enjoy yourself while you're at it."

"That's one drawback about the Albatross," said Honk; "a man can't eat or smoke; I'll have to look after that."

"Might fasten on a nose-bag for the eating part," I said; "and as for smoking, smoking's a pernicious habit, anyway."

"That's right," he agreed; "gimme a chew."

Little Mac went aloft right after breakfast. After he got next to the stunt, I believe he flew faster than Honk did. He was a regular teal duck at aviation. The interlocking process had been explained and coached into him carefully, and flap-flap he went up like a miller until he was almost a thousand feet high. Then we saw him wriggle and kick his heels and spread the wings out straight; then they locked, and little Mac began to soar.

"She's not working just right with him," said Honk; "she seems to be rising all the time."

"They're coupled too far back on him," I said; "he's too small for the harness"

"You're right. Now he's cutting loose the telephone. Here it comes Hallo, Mac, are you O.K.? That's good. We thought maybe she didn't fit you very well. Sure thing, you're doing fine. Glad to hear it."

"He says he's having the time of his life and can see all of the United States that's worth seeing," said Honk as the telephone went jerking back.

"Well, we might as well lay a few rolls of sod, then," I said. "He'll come on down whenever he gets ready. He's a great fellow, little Mac; got a good, healthy appetite and appreciates our grub, too. Did you notice him eat?"

"I should say I did," said Honk; "and did you hear him discourse on superheated steam and electric welding night before last? He's got some gray matter in paying streaks around in that roco of his."

So we went ahead with our sodding and engaged in a discussion of turbines as applied to locomotives, until we clear forgot little Mac for about an hour. When we looked again he had drifted

away pretty near a mile, and was sailing around in an aimless circle, as unconcerned as anything.

"What do you know about that guy?" said Honk. "Isn't he having the picnic? He'll forget to come down to dinner if he keeps on."

We watched him casually for another hour or so, and he was getting gradually farther and farther away.

"Look at that buzzard!" said Honk. "I'll bet his arms will be paralyzed when he gets down."

"Say, there couldn't be anything wrong with the wings so they wouldn't unlock, could there?" I asked

Honk was puzzled. "Let's ramble over and see if we can get a word with him," he said finally.

It was a good two miles, and when we got there he was too high for us; the telephone dangled a hundred feet over our heads. We waved and shouted, and little Mac wriggled his feet in reply; but if he said anything, we didn't hear it

"He can't unlock her, that's a cinch," concluded Honk, "or he'd have been down before now; and if he does unlock her with his arms as numb as they are by this time, there'll be some tumbling-pigeon flying on the part of little Mac. I don't see anything we can do."

"What! Will we have to see that little cuss circle around up there till he starves to death?" I asked

"I hope not," he said dubiously. "Maybe if he'll work his way over to the foot hills, he can strike a mountain and come down that way."

We tried to signal this to him by pointing and running a little ways throwing our hats and such primitive sign language. He caught on at last and clapped his feet together to show he understood. He also wound up the telephone out of the way and began to circle in wider rings, edging toward the Big Spine, which was some twelve miles away.

LITTLE MAC CLAMBERED DOWN INTO OUR MIDST, SAFE AND SOUND, AND WE SHOOK HANDS WITH GREAT UNCTION

"He'll make it," said Honk "if he keeps his nerve. He's got to make it,

that's the only way the guy can get down."

We followed along underneath, reenforced by several Eagle Plumeites, and it was quite a drill over to the mountains on an empty stomach. Little Mac traveled a good bit faster than we did, as he made his journey in circles; but if he didn't have any more fun than we did, he didn't have much.

It took the biggest part of the afternoon; and just about sundown, when we had gone as far as we could and keep him in sight, little Mac bumped *terra firma* away up on the inaccessible side of old Big Spine Mountain.

"Now, will you lie good?" said Honk, as we saw him sprawl on the rocky slope and lie still.

"How'll he get down, now he's there?" I asked.

"He can fly down in the morning," said Honk. "We've got a thirteen mile walk back before we can even sit down."

We got in about midnight, feeling mighty pettish. After a considerable session with the commissary department, our sympathies for Mac revived; and if we could have wished him a steaming spread up there on the inhospitable side of Big Spine, he'd have had his feet under the table very shortly. It was through no fault of ours that he spent the night dining off of his dreams.

"I wish I had a field-glass," said Honk at daylight. "We can't see him very plainly from here."

"Maybe he's got one in his prop-case here," I said.

He did have, too; a first-class binocular with French lenses, and it brought the mountain to Mohammed in short order.

HE DUG DOWN INTO HIS POCKET AND BROUGHT OUT A NUGGET, DINGY YELLOW, AND AS BIG AS A WILD GOOSE-PLUM

"There he is," said Honk; "he's browsing around on the plateau like a mountain goat. The Albatross is all jumbled up. Wait a minute. By grab, he's wrecked her; she's a pile of scrap. What's he piking around for? Say, I'll bet that man's hungry. I wonder what he's doing?"

"You might let somebody else take a look while you're wondering," I said. "Have you got a season ticket?"

"Beg pardon," said Honk. "You *are* still here, aren't you?"

"What we want to do," I said, after a survey of the moving speck on the mountain, is to get a couple of cayuses and a coil of rope and some lunch and ride over and rescue the little cuss; ain't he our guest?"

"Sure, that's what I was about to do," said Honk, and we issued forth at once.

Two hours later we were within a hundred and fifty feet of little friend Mac, who, with the exception of being somewhat stiff and sore and hungry enough to eat rubber buttons, was uninjured and cheerful. He was peering down a smooth perpendicular wall of rock of the above-mentioned height, and it probably looked higher to him than to us.

"Now, then," I said, "who'll take up the rope? Don't all speak at once." We had already found out that the Albatross was a badly bunged remnant of its former glory.

"Wait a minute," said Honk, and he bellowed up to know if Mac still had the wire belonging to the telephone. He had. But he had to go and get it, half a mile away, which feat he finally accomplished.

Then we sent him up a sack of sandwiches and the rope. The rest was easy. Little Mac clambered down into our midst, safe and sound, and we shook hands with great unction.

"I don't care nothing for the Albatross," said Honk; "we'll build a bigger and better one. I'm just glad, Mac, that she didn't drop you on a rock, you little rascal, you! Come on, let's make tracks."

"Wait now, fellows," said Mac. "Before you go, I want to show you something. I found this on the plateau up there."

He dug down into his pocket and brought out a nugget—a nugget of free gold, dingy yellow and as big as a wild goose plum. We stared.

"There's more up there," he said, jerking his thumb. "Enough for three," he added, grinning good-humoredly and hafting the nugget in his hand.

ANOTHER WONDER OF THE WIRE.

Lightning Operator of the Pine Tree State Who Has Been Totally Deaf for Eight Years.

WE have at various times referred to the "youngest telegraph operator," or "the fastest telegraph operator," and now we come to "the most wonderful telegraph operator in the world." We have realized long ago that it is not wise to make claims for "youngest," "oldest," "fastest," or any other kind, but this particular operator, Peter A. Foley, of Portland, Maine, seems, according to the Kennebec *Journal*, to have made a fair case for himself. The newspaper says:

"Peter A. Foley, the 'lightning taker' of Portland, is the most wonderful telegraph operator in the world. Foley is totally deaf, an affliction which ordinarily would be supposed to make telegraphy an utter impossibility to him, but since he became deaf, eight years ago, Foley has developed what may be called a sixth sense, and by touch and sight he can detect the finest movements of the instrument, and interpret them.

"His nervous system is a part and parcel of telegraphy, and by means of the sense of touch in his finger-tips he takes messages transmitted from the ends of the continent. He can read a message by watching the sounder. With his left forefinger placed lightly on the sounder, he can by his wonderful sense of touch take a message as accurately as any man in the office."

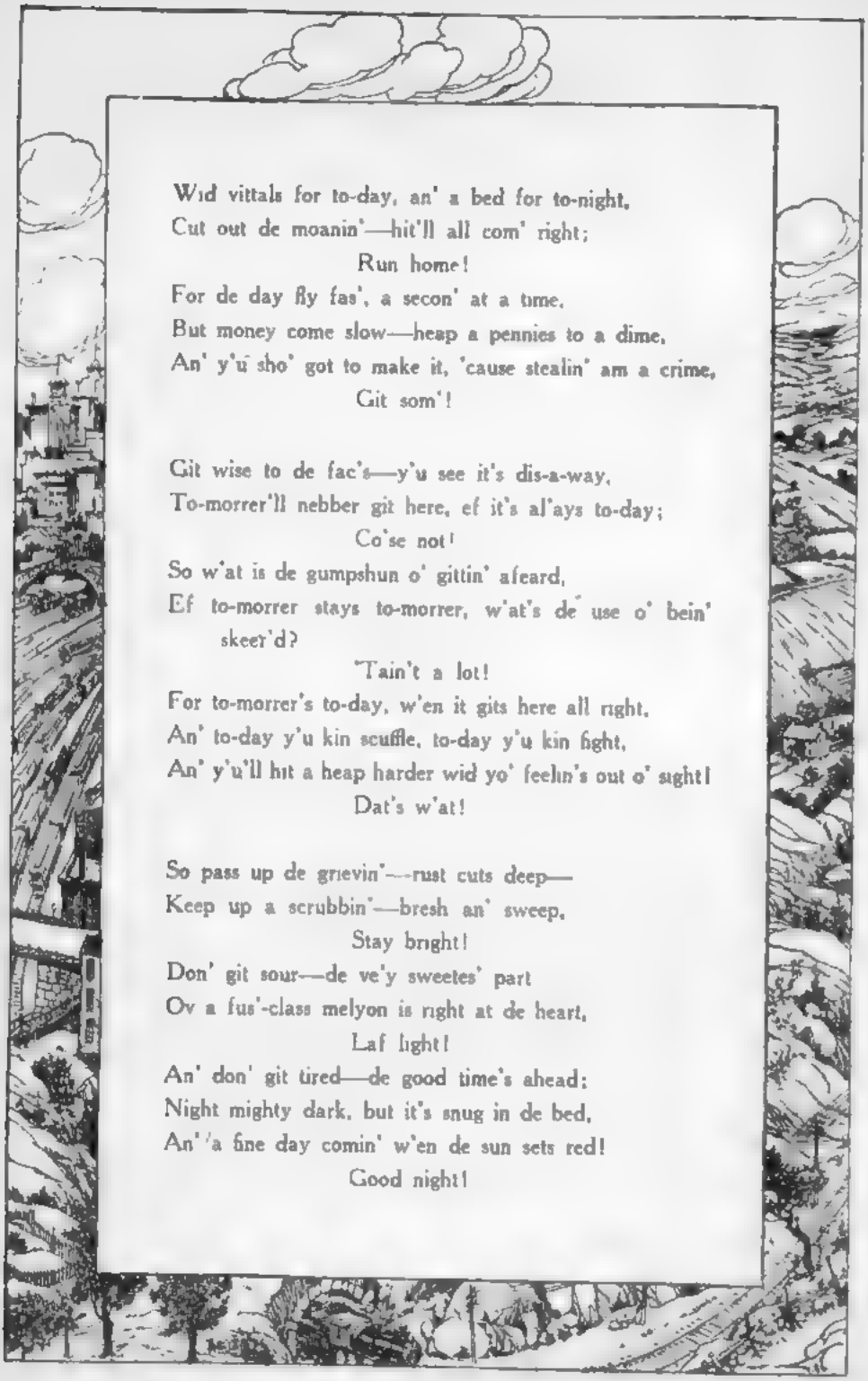
"TO-DAY AN' TO-MORRER."

BY WILLIAM M. WHITNER.

Written for "The Railroad Man's Magazine."

EF a hard time come, jes' hit anudder lick;
Ef y'u git a big jolt, ketch a fresh holt quick;
Don' cry!
Hit's a mighty bad sign to do a lot o' weepin';
Good luck ain't a comin' wid y'u crawlin' an' a creepin';
Look high!
Ef I won't kno' trubble, hit kain't kno' me,
An' I'm singin' to-day, for a man ain't free
To sigh!
So stan' up, my fr'en', an' sho' a good shadder,
For de weakes' smile makes de face look gladder,
An' a po' mouf'll sho' make a sad heart sadder—
Jes' try!

De ring-dove moans, an' de rain-frog croaks;
Heap o' sad soun' des' lik' som' fo'ks;
How come?



Wid vittals for to-day, an' a bed for to-night,
Cut out de moanin'—hit'll all com' right;
Run home!
For de day fly fas', a secon' at a time,
But money come slow—heap a pennies to a dime,
An' y'u sho' got to make it, 'cause stealin' am a crime,
Git som'!

Git wise to de fac's—y'u see it's dis-a-way,
To-morrer'll nebber git here, ef it's al'ays to-day;
Co'se not!
So w'at is de gumpshun o' gittin' afeard,
Ef to-morrer stays to-morrer, w'at's de use o' bein'
skeer'd?
'Tain't a lot!
For to-morrer's to-day, w'en it gits here all right,
An' to-day y'u kin scuffle, to-day y'u kin fight,
An' y'u'll hit a heap harder wid yo' feelin's out o' sight!
Dat's w'at!

So pass up de grievin'—rust cuts deep—
Keep up a scrubbin'—bresh an' sweep,
Stay bright!
Don' git sour—de ve'y sweetes' part
Ov a fus'-class melyon is right at de heart,
Laf light!
An' don' git tired—de good time's ahead;
Night mighty dark, but it's snug in de bed,
An' 'a fine day comin' w'en de sun sets red!
Good night!

Decline and Fall of Train Robbery.

BY ARTHUR B. REEVE.

IS the gentle art of train robbery decadent? The stories of the great hauls and daring deeds of the "Wild Bunch," of Oliver Curtis Perry, of "Old Bill" Miner, of the James boys and their band, of the Daltons, and the hosts of others, belong to the palmy days of the industry. After them came a slump in business.

Last year there seemed to be a slight boom—a bullish movement of the market, as it were. But does it amount to anything? Let us glance at the records of the more important train robberies of the past two years. They are instructive.

Many Bandits Fail To Find the Goods or To Get Away with Them Afterward, but "It Isn't so Bad at That."

UP to within recent times train robbers were at least successful in the hold-up end of their game. They got the goods and, what is more, got away with them in the first instance. True, they were often caught with the same goods on. They were killed or sent to jail with a discouraging frequency, but, at least, they had a run for their money.

Nowadays, however, the tables are likely to be turned, and the train robber often gets caught in the very act of taking the goods, or even fails to get them at all. Even in the few big robberies of recent date, where the gross receipts look large in print, the net receipts are found in practise to be trifling, when the whole story is told. Indeed, these are evil days—what with railroad detective forces and those well known experts, the Pinkertons.

Take, for example, a robbery that occurred near Gilliam, Missouri, shortly after midnight Sunday, December 2d, 1906. A single robber boarded the train at Slater, Missouri, looking apparently for belated Christmas presents for himself.

He compelled the sleeping-car porter and the train conductor, Elias B. Haywood, to accompany him through the cars, the porter awakening the passengers in the sleepers, collecting their valuables, and handing them over to the robber. As the train neared its next stop, at Glasgow, the robber disappeared, and the conductor, thinking it a good chance, was reporting the robbery to a telegraph operator.

Almost before Haywood knew it the train robber had pulled the signal to the engineer, and the train had started. The conductor, by quick action, succeeded in stopping the train and informing the engineer of what had occurred. Then he started through the train.

He hadn't gone far before he met the "hold-up" man, with the porter and a flagman, who had been impressed into Haywood's place in the meantime, both of them under the hypnotic influence of

the hold-up's pistol, continuing to relieve the passengers of their valuables.

For his pains Haywood was again shanghaied into service, and the train was started again. The trio was forced to go through with the job to the very last car.

It was a daring piece of work. The last car reached, and everybody having been looted, the robber locked the flagman and the porter in the ladies' dressing-room, and, still covering the conductor with his gun, started to take the plunder from the flagman's hat.

HE COMPELLED THE SLEEPING-CAR PORTER AND THE TRAIN CONDUCTOR TO ACCOMPANY HIM THROUGH THE CARS.

An Inglorious Ending.

Haywood was watching every move of the robber intently. In his eagerness to sort the booty the robber was suddenly seen by Haywood to be off his guard for an instant. In a flash he leaped at him, and the two men grappled.

Up and down, and across and back again, over the aisle of the car, they wrestled desperately. The robber had lost his gun; it was now a pure man-to-man fight. Of a sudden the robber wrenched himself free and disappeared through the door to the platform. The conductor made a grab at the robber's revolver, and fired several times in his direction, to no effect

At first he thought the robber had jumped or fallen from the train, which was running now about forty miles an hour. As he stepped out on the platform, however, he found the robber

crouching on the lower steps. He reached down and seized him firmly, dragging him back into the car, and gave him the worst beating of his life.

Then Haywood held the hold-up until the train pulled into Armstrong; and

IN A FLASH HE LEAPED AT HIM, AND THE TWO MEN GRAPPLED

there the police, who had been notified by the Glasgow operator, were waiting. The unfortunate criminal gave his name as Jesse Clyde Rumsey, and volunteered the information that his brother had held up the Chicago passenger-train, near Glasgow, Missouri, November 8, 1906, in exactly the same way. He had learned from his brother how to do it, and had almost succeeded—almost! He hadn't reckoned with the alert and fearless Haywood.

On the 12th of September, 1907, one of the largest of recent train robberies took place on the Great Northern. This railroad, it may be remembered, was the scene of one of the most daring of the operations of the famous "Wild Bunch," July 3, 1901, when Harvey Logan, George Parker, Harry Longbaugh, and Camilla Hanks made off with over forty thousand dollars in incomplete bank-notes. Since those gay days few big jobs have been pulled off, for the "Wild Bunch" is scattered "from Argentine to Hades," as one detective puts it.

But a little over a year ago, at a quarter to three, on a September morning, the Oriental Limited, an overland train, bore two unexpected passengers in masks, secreted on the tender. They were professional train robbers. One was George Frankhauser, *alias* Ed Smith; the other was Charles McDonald.

Frankhauser had been released a few months before from Deer Lodge Penitentiary, in Montana, where he had served a term of fourteen years for train-robbery. McDonald also was an ex-convict, for the same sort of work. They quickly went into business together again.

The train was about a mile beyond Rondo, Flathead County, Montana, when the two partners crawled stealthily over the tender into the engine cab. With four ugly revolvers they held up the engineer and fireman, and compelled them to stop the train. Then they dynamited the safe of the express-car, and also an extra safe, but they got no money or valuables from them, so they went into the mail-car and stole four packages of registered mail.

Then they ordered the engineer to extinguish the headlight, and disappeared in the darkness. Their haul was about forty thousand dollars—a pretty good morning's work.

At once the machinery of the law was set in motion. Thirteen thousand dollars reward was offered, altogether for both of them—ten thousand by the railroad,

two thousand by the post-office department, and one thousand by the Marine Insurance Company of London. Circulars describing them as nearly as possible were spread broadcast, stating that expressions used by them indicated that they were of the "yegg" type, or possibly ex convicts

Then followed a shrewd, long-distance guess of the Pinkertons:

> To Sheriffs, Chiefs of Police, Marshals etc
>
> Look out for two ordinary looking men with considerable money. Likely to be found about the lower class gambling resorts and houses of ill-fame. A clue or trace of the robbers may be obtained by showing this circular to hotel, boarding and rooming-house keepers, railroad detectives, freight and passenger crews, dance and concert-hall keepers

The advice was good. It was only a few weeks before they were located in a low dance-hall. That shows how quickly things work nowadays. They were arrested at Hillyard, near Spokane, Washington, and fourteen thousand dollars were recovered.

The Montana State authorities at once

THEN THEY SCALED THE HIGH WALL, AND JUMPED FIFTEEN FEET INTO AN ALLEY.

took them in charge, but soon after the Federal authorities intervened. They were locked up in the county jail of Helena, Montana.

A Complete Getaway.

The 21st of last March they managed to escape, as "Old Bill" Miner had done a few months before, and to-day these three—not perhaps in partnership, but not separated probably by many miles are the most menacing known train robbers of that part of the country. They sawed through their cell-door, and then cut the bars between the corridors, and also those in the jail window above the yard.

Then they scaled the high wall by means of outbuildings, and jumped fifteen feet into an alley. They were supposed to have been assisted by people on the outside. Men answering their description were seen in the south part of the city making for the mountains.

Bloodhounds were placed on their trail at once, but owing to the dryness of the ground they made slow progress The United States marshal, Merrifield, also formed a posse which took part, but the pair escaped, and are still at large. They have absolutely nothing to show to-day for their daring exploit except a record that may any time land them in jail, with long terms to serve.

Another recent robbery, in 1908, was of the postal-car on the Great Northern Oriental Limited, at Bonner's Ferry,

Idaho. This was on March 15, and was pulled off early in the morning by a single man. In the guise of a post-office inspector he obtained admittance to the car at Bonner's Ferry.

There were two clerks in the car, one of whom he overpowered and, at the point of his gun, locked in a closet, while he bound the other and put him under a table. That was the hardest part of his job; then he began to rifle the pouches of through registered mail.

So wary was he that while the train was speeding toward Spokane, a run of over one hundred miles, taking over four hours, he not only carried on his work of looting, but received the mail at three stations, where the train stopped and threw off the proper pouches. As the train entered the Spokane yards he leaped from the car, with the booty in a small bag, which he had with him when he boarded the train at Bonner's Ferry, and made his escape.

He had cut his hand with his knife on one of the first bags ripped open, and it had bled rather freely on much of the mail he had handled, and was still bleeding when he jumped off. The blood provided a scent for dogs to follow.

A One-Man Job.

Bloodhounds were taken along the right of way of the Great Northern, and picked up the scent within the city limits of Spokane, less than a mile from the station. After they had followed it for several blocks they came to a car line. Apparently the robber had boarded a car and ridden down-town. The trail was lost

Six sacks had been rifled, all of them for points on the coast. The Spokane sacks had not been touched. This was a fairly good-sized robbery; though, as a matter of fact, no one knows how much or how little the robber got

A daring but unprofitable robbery took place April 17, 1908, on the outskirts of Minneapolis. A west-bound Northern Pacific coast train, number five, was held up almost within the city limits.

Two men had boarded the train when it started from the city, and they lost no time in hurrying into the sleeping-car. Most of the passengers were still awake, as the train had just left the station; yet, in true stage-coach style, the robbers commanded everybody to hold up their hands. One robber stood guard, while the other searched the victims

A Quick Trick.

As nearly as could be learned the train was only about fifteen minutes out of the Union Station, and the robbing began somewhere after the North Minneapolis roundhouse was passed, and was completed in a very few minutes before the train reached the grade crossing at Twenty-Fifth Avenue, Northwest, an amazingly short time.

The conductor, M. O. Graves, was in the smoking-car, and knew nothing of what was going on in the sleeper until the train made its first stop at Northtown Junction, seven miles beyond the scene of the hold-up. By that time the men had jumped and escaped. Indeed, the hind brakeman said they left the train while it was running at a fair rate of speed at a point not far from Twenty Fifth Avenue.

The conductor telegraphed from Northtown back to Minneapolis, telling all the particulars. Every available officer was at once detailed on the case, but, scour the city as they would, they could find no trace of the men. For sheer bravado, it was as though a Pennsylvania train should be held up on the Jersey Meadows, or a New York Central train in the Bronx.

After all the chances they had taken the men got exactly forty-one dollars, two watches, a Great Northern Railroad pass, and a Northern Pacific pass—not what one would call a great haul. They might possibly have got more if they had hunted more energetically, but they knew that they might also have been caught. It was pikers' luck.

The same sort of lack of nerve, which shows the decadence both of the trade and of its followers in these later days, caused the failure at a critical moment of a desperate attempt to hold up a west-bound coast limited train on the Northern Pacific the 24th of April, 1908 This, too, was in that northern region where train robbery is making a last fitful stand, two miles west of Welch's

Spur and about twelve east of Butte, Montana.

Two men, Rudolph Wenk and Paul Filenius, were arrested for alleged complicity in the attempted hold up, but the case for them was about as strong as the evidence against them. They declared they were forced to join in the hold up by a party of masked desperadoes.

shots fired at the engineer by the bandits. Whether or not their story was true, a few days later came news of the wrecking of a train by dynamite in the same region, robbery being the supposed motive. But the robbers got absolutely nothing. These are typical fizzles.

One of the very latest of train robberies, this time in the East, and pulled

HE FOUND ROSHEN WITH HIS HANDS TIED BEHIND HIM WITH A LEATHER THONG.

For some reason the desperadoes, whether captors or comrades of Wenk and Filenius, lost their courage when the train came to a stop and fled, leaving it untouched. Filenius and Wenk then walked back to Welch's Spur station and told of the affair themselves.

The robbers had fifty sticks of dynamite, and had planned to blow up a part of the train to get the money supposed to be on board. As a matter of fact, one stick was really found on a low bluff beside the cut in which the train was stopped. What had been supposed to be the reports of torpedoes placed on the tracks, said the two Germans, were really

off, it is thought by the Pinkertons, by insiders, too, turned out to be hardly worth the candle. The New York and St. Louis express had reached Walker's Mills, just beyond Pittsburgh city limits, on the night of May 1, 1908. The express messenger, Noah K. Roshen, fifty-three years old, and an old employee of the express company, was alone in the car, when the robbers entered.

The signal-rope was pulled by some one to stop the train, according to the story of George Jones, the baggage-master, who was the first to discover the robbery. He tried to find out who had done it, and made his way to the express-car, where, much to his surprise, he found Roshen with his hands tied behind him with a leather thong.

A handkerchief covered his mouth. Examination showed that the robbers had made a safe getaway, and a section-hand was found who said that he had seen two men join a third near the scene and drive off in a waiting buggy, just after the train stopped at the station where Roshen's plight was discovered.

Little for Their Pains.

When the reports of this robbery were printed in the newspapers, it was estimated that the robbers had realized thirty or forty thousand dollars easily, if not more. Most of the bags were found to be intact, and it was easy to see that they were after money, and nothing else.

Indeed, a number of valuable packages of merchandise, presumably jewelry, were cast aside, and other valuable packages left, apparently because they were too bulky. Nothing but cash satisfied them. And, after all the scheming and planning and running of risks, it now develops that they got exactly four hundred and forty-one dollars and seventy-one cents in three packages, and that the total haul, even with the little jewelry they did take, could not possibly have exceeded six hundred dollars. Compare that with the enormous sums that men used to risk their lives for in the days when the law was a good deal easier to evade than it is now, even with the utmost care.

In fact, the only really respectable sum stolen in the past few months in this manner was the thirty-five thousand dollars taken at French, New Mexico, a lonely station out on the prairie, May 14, 1908. This was the monthly pay of the Dawson coal mines, which was being held in a safe by the station-agent, having been transferred from the main line of the El Paso and Southwestern, awaiting the train on the branch line to Dawson.

There were three robbers who tied and gagged the station agent, and an armed guard blew open the safe and rode away. There were features of this case somewhat like the famous hold-up on Mineral Range (RAILROAD MAN'S MAGAZINE, October, 1907), in that the robbers had a straight tip from somewhere about the shipment of money. This was, properly speaking, however, not a train robbery at all. There is a good precedent for believing that the thirty-five thousand dollars won't travel far

"Do you think the business is going to pot?" I asked one of the leading Pinkerton sleuths, Mr. George S. Dougherty.

"Well, it isn't so bad, at that," he grinned; then added seriously: "You see, they probably will get altogether at this business of train robbery this year about one hundred thousand dollars. During the last two or three years, all told, large and small, money and everything else, the sums taken have averaged perhaps seventy-five thousand dollars a year. But before that there was scarcely a year that it didn't mount up to two or three hundred thousand

"The present spurt is just a temporary one. Ten years ago, when the 'Wild Bunch' was operating, the sum was high; but they are broken up, and the train robbers of to-day can't touch them. Yes, I guess you can safely say that the palmy days are gone for good."

Mainly About R. R. People.

Opportunity Does Not Demand to See the Silver Spoon, and Brains and Poverty are Cradle Mates That Make Men.

AN AMERICAN IN MEXICO.

The Big Task Tackled by a Big Railroader Who Has Had a Long and Varied Experience.

S. M. FELTON is probably the most prominent of contemporary American railroad men who have stepped across the border to take charge of a great Mexican railroad. Leaving the presidency of one of our greatest railroads, the Chicago and Alton, Mr Felton carried his vast experience and ability to the Mexican Central over a year ago.

As is to be expected of a man in such high positions, Mr. Felton is a veteran railroader, having been in the business for forty years. He began as a rodman on the surveying corps of the Chester Creek Railroad now a part of the Pennsylvania, in 1868.

His advance was sensational. In 1873 he was chief engineer of the Chester and Delaware River Railroad. One year later, having been railroading only six years and being only twenty-one years of age, he was made general superintendent of the Pittsburgh, Cincinnati and St Louis

In January, 1882, Mr. Felton was appointed general manager of the New York and New England Railroad. Two years later he was made assistant to the president of the New York, Lake Erie and Western in special charge of the New York, Pennsylvania and Ohio

In November of the same year, 1884, he became general manager of the last named road, and held that place until January, 1885 His next promotion was to vice president of the New York, Lake Erie and Western, in charge of the traffic department. In October of the same year he was made first vice-president and given also charge of the operating department

In November, 1890, his connection was transferred to Southern roads, as president of the Tennessee, Virginia and Georgia, and of the Cincinnati, New Orleans and Texas Pacific

His presidency of the former road ended in March, 1892, and of the latter in March, 1893, at which time the Queen and Crescent was given into his hands as receiver. He continued as receiver of the Cincinnati, New Orleans and Texas Pacific until October, 1899.

September 7, 1899, Mr. Felton became president of the Chicago and Alton, the Joliet and Chicago, the Kansas City, St Louis and Chicago, and the Louisiana and Missouri River roads. His new connection with the Mexican Central, in which he succeeds Mr. Eben Richards, who is also general counsel, gives him a much larger field and considerably greater opportunity

BUILT R. R. FOR SHERMAN.

Some Large Jobs That Punctuated the Career of R. M. Ridgeway, Railroader of Civil War Fame

R. M. RIDGEWAY, who died in Kansas City some months ago, was a railroad man of more than ordinary picturesque career. He built the main line of the Union Pacific between Kansas City and Denver, the Denver and Rio Grande Railroad, and was Sherman's railroad builder on his march to the sea

Mr. Ridgeway began railroading in 1851 as a teamster on the Lackawanna. He was engaged on track work as foreman of gangs and sections on the same railroad until the outbreak of the war, when he joined the army and became foreman of Company C, of the second division construction corps, United States military railways.

Until 1865 he remained in the military service as supervisor of the second division of the same service. After this he held many important road positions, both in construction and operation.

In 1883 he was made superintendent of the San Juan division on the Rio Grande, and was later successively superintendent of the fourth, third, and second divisions of the same road, and in 1892 was made superintendent of the Rio Grande Southern

FIREMAN TO PRESIDENT.

Startling Rise of the Head of the Norfolk and Western from the Lowest Road Position.

THE president of the Norfolk and Western, Lucius E Johnson, has had an unusual and meteoric career. He entered the railroad service as a fireman on the Burlington, in 1866. With this road he remained for twenty four years, leaving it after having held all kinds of positions leading up to and including that of superintendent of the Chicago division

After three years in the latter position, he accepted the post of superintendent of the Montana Central Railway, and in 1897 became superintendent of the Michigan division of the Lake Shore and Michigan Southern. He then, in turn, became general superintendent, general manager, president and general manager, and finally president of the Norfolk and Western, having in little over thirty years run through the whole scale of railroad promotion

PASSING OF A PRESIDENT.

Charles Elliott Perkins, Former Chief of the Burlington, a Great Man with a Great Sense of Honor.

A FIGURE of prominence, recently removed from the circle of past railroad masters, was Charles Elliott Perkins, former president of the Chicago, Burlington and Quincy

Mr. Perkins was in active railroad service for forty-two years, joining the Burlington and Missouri River in 1859 as cashier, and retiring in 1901 as president of the Chicago, Burlington and Quincy, the successor of the old company. Thus, Mr Perkins was practically in the service of one road from the start to the finish of his career.

A story illustrative of Mr. Perkins's sterling character is related by Charles E. Dawes, former Controller of Currency. The story was first told in a weekly magazine, the name of the man referred to being withheld, but Mr. Dawes has since given out the name. In telling the story to Mr. Dawes Mr. Perkins said:

"Without my own knowledge, I was elected a director in the bank, which, though not closed, was insolvent. I continued as a director under protest. My holding of stock amounted to only ten thousand dollars, and double that amount, of course, was the limit of my liability under the law.

"But the fact remains that I did allow the use of my name as a director, and thus may have influenced some persons to become depositors. Because of that possibility I determined to save the depositors and other creditors from loss."

Mr Perkins, therefore, contributed a million dollars from his private fortune and saved the situation.

WATER-BOY TO G. M.

The Appointment of Houlahan on the Alton Is Another Step in a Wonderful Career.

ONE of the appointments of the past year that created more than ordinary interest was that of P. H. Houlahan to the position of general manager of the Chicago and Alton and St. Louis and Western.

He began to earn his daily bread at the age of twelve, as a water-boy on the construction work of the Ottawa, Oswego and Fox River Railroad, at Ottawa, Illinois. This road is now the Fox River branch of the Burlington

That was in 1867. Houlahan's first step above this was to the position of track-walker. Then he was made check clerk, station baggageman, ticket agent, brakeman, and conductor.

Fourteen years after entering the railroad service, at the age of twenty-six, he received his first executive position, that of assistant trainmaster for the St. Louis division of the Burlington. Four years later he succeeded to the post of trainmaster.

In 1886, he was made master of transportation of the Arkansas and Texas, at St Louis, and during the same year was appointed to the position of trainmaster. In 1890 he became assistant superintendent, and in 1891 superintendent of the west division of the same road

The following year found him superintendent of the Hannibal and St. Joseph Railroad, and in December of that year he was appointed general superintendent of the Toledo and Western and the Alton. From this position he has succeeded to the general managership of the same roads, as stated.

TRAILING THE "JOSEPHINE."

BY WILLIAM WALLACE COOK.

Author of "Running the Signal," "The Paymaster's Special," "A Desert Argonaut," Etc.

Mr. Jordan, of San Simone, Learns That Trouble Knows Nothing of Geography.

CHAPTER I.

The Unexpected Happens.

EXCITING events, like many other things in this life, follow the course of least resistance; and I had supposed, up to the time I went to New York, that impulsive actions and thrilling results encountered fewer obstacles west of the Missouri than east of it. Now I feel sure that geographical location has nothing to do with the matter.

Human nature, I take it, is about the same the world over; and, certainly, there's no spot on the map of our beloved country that has a monopoly of the best or the worst.

Charley Phipps said something like this to me before I left San Simone, attempting to argue a thirty-eight caliber into my hip-pocket for guide, counselor, and friend while I was adrift in the big metropolis. Yet, even though grim business and not mere pleasure was luring me away, I frowned upon Charley's arguments and suggestion

"Charley," said I, "as the distance widens between me and San Simone, just remember that I'm getting farther and farther away from barbarism, and nearer and nearer the haunts of culture and civilization. The ways of this camp are not the ways of an Eastern town."

"Anyways," insisted Charley, "you ought to tote your hardware and be on the safe side. If you meet up with Gollinger—"

"If I do," I broke in, "I'll call for the police. It won't be necessary to do any of the legal work myself."

Charley shook my hand and drew off to one side while I climbed into the stage. His face was full of foreboding as I looked back for a parting wave of my hat.

I hadn't been in New York two days before the unexpected happened, and I knew that Charley was right. The pen-tracks I left on the hotel register, "Bert Jordan, San Simone, Arizona," had something to do with it, but my sunburned face, black hat, soft shirt, and painfully new corduroy trousers had more

Feeling that the best was not too good for me, I was putting up at a place where a square meal took all the crimp out of a two-dollar bill, where they had music to make you forget what you were doing while you rambled liberally through the bill of fare, where damages for a bed and bath were three dollars a night, and where you couldn't turn around without finding a hand in front of you, palm upward.

This was all right. I was sampling the delights of the metropolis in the free and easy way that has always been mine. As Charley Phipps used to say, "When you're in Cheyenne, do like the rest of the Injuns." So there I was, trying to make myself inconspicuous by whooping it up like the rest of the New Yorkers. If some Broadway tailor had made my clothes, perhaps I should have succeeded.

My retiring disposition got its first jolt on the afternoon of my arrival. A pale young man came up to me as I sat

in the lobby, and wanted to know if I was Mr. Jordan, of San Simone. He didn't look like a confidence man, and, even if he had been, I had graduated from the mines, and could tell a gold brick with my eyes shut.

As it turned out, this young man's name was Gordon. He was a reporter for a morning paper. He had heard of a miner in the West who had struck it rich, and had come East to cut a dash, chartering a train so that he could come in style. The name on the register, no less than my appearance, had attracted Mr. Gordon's attention and aroused his suspicions.

Now, on the level—he wanted to know—wasn't I the miner who had made the lucky strike? My Western manner and luxurious surroundings seemed to suggest it. And, if I was, wouldn't I give him a story?

There was an appeal in Mr. Gordon's eyes which I could not resist. Also, the appeal was backed by an expensive cigar. He wanted a story, and I had been known to tell some good ones. Why disappoint him? I asked myself as I put fire to the perfecto.

I can't remember just what I told Mr. Gordon, and I have mislaid the paper that published the yarn, but the weed stimulated my imagination, and I have been told that the result was brilliant.

No one, back in San Simone, would ever refer to me as a mining king, nor accuse me of chartering a train of Pullman cars to go anywhere so long as I could get a berth in a tourist sleeper. Nevertheless, I had an account in the San Simone bank and several hundred in gold in my money-belt. The interview with the reporter gave me a pleasing idea.

Why not, in a somewhat conservative manner, foster the impression I had offered Gordon in that story? New York was a big city, and I had not Gollinger's address. If he heard of me through the papers, and if he thought I had struck it rich, he might flock to me of his own accord, for he was snaky and underhand, and always had his eye on the main chance.

That night I went to a good show, and had a lower box all to myself. Opera-glasses were turned on me from all parts of the house, and I lost myself in the performance with so much enthusiasm that the audience must have enjoyed me quite as well as they did the people back of the footlights.

After the show some more reporters got hold of me and took me out to supper. Inasmuch as they settled the bill, of course I had to draw on my imagination in order to break even. It was half past one before I pulled the blankets over me in that three-dollar room.

There was a telephone connecting my quarters with the office, and it went off in the morning like an alarm-clock. There was a crowd of people in the lobby who wished to see me, and the clerk wanted to know when I was coming down.

I asked the clerk to particularize, and discovered that three of the crowd wanted to sell me some stock, two wanted me to finance schemes in which there were millions "in sight," four wanted advice as to mining investments, and five refused to make any statement as to the business that brought them.

After I got up one of the bell-boys took me out of the hotel by means of a rear window and a fire-escape. When I returned in the afternoon I returned secretly, and a little later a messenger arrived from the office with a bundle of mail. None of the letters was from San Simone.

All save one were written in a heavy, masculine hand, and not one was signed by Gollinger. The waste-basket received every letter except the one addressed in fine feminine chirography.

To say that I was disappointed would be stating the case mildly. If Gollinger was in New York, certainly the free advertising I had had could not have escaped his eye. Knowing the man as I did, and understanding very well that he could not know I was after him, I was sure he would lose no time in hunting me up if he read the papers. Successful miners had always been his especial prey.

I did not overlook the fact that he might have written me under a fictitious name, but I was familiar with his crabbed penmanship, and could tell it at a glance. On the other hand, if he was not harboring any dark designs, and thought best to call upon me in person, he would not hesitate to send up his real name.

Why a letter which was plainly from a woman should appeal to me could be explained in two ways. First, in the rough country where I had spent ten of my thirty years, a good woman has every man's respect and consideration. Second, the letter itself was enough to arouse my interest and curiosity. It ran:

> Of course, what you have told the reporters, or the story the reporters have made out of what you told them, is wide of the truth. To one, like myself, who has lived in San Simone, this is not hard to discover
>
> May I have an interview with you this evening? Such an interview would result, I imagine, in more benefit to me than to you. An automobile will call at your hotel at eight this evening, and the driver will ask for you. If you are the same Bert Jordan I used to know, then you will not refuse this request.
>
> A LADY FROM SAN SIMONE

No one will deny that there was plenty here to capture my attention. The writer had lived in San Simone—lived there long enough to learn the surrounding country and, out of this knowledge, had been able to prick the bubble of my recent imaginings. Not only that, but she *knew me*, and on this basis built her foregone conclusion that I would put myself in the hands of the driver of the automobile and ride away with him to the interview.

She was correct in her surmise. I would be ready at eight o'clock, if for nothing more than to discover who this "Lady from San Simone" might be.

Following supper—that's what we'd call a 6 P.M. meal in San Simone, and I can't bring myself to name it differently here—I lounged in my room, smoking cigars and keeping a watchful eye on the hands of my watch. I beguiled the wait, after a fashion, by groping about in my memory after all the San Simone ladies who had ever crossed my eccentric orbit.

Mrs. Beasley, wife of Tom Beasley, proprietor of the Spread Eagle Hotel, came first to my mind whenever I thought of the good angels of San Simone. Mrs. Beasley had nursed me through an attack of mountain fever, and, although of humble station, was certainly one of the Lord's anointed. But she could not have written a dozen words without misplacing a few troublesome letters. Besides, she was still in the camp.

Then there was Alice Phipps, Charley's sister. She had been with us for a while, but had gone to Denver to learn to be a trained nurse. With only a year of her three-year course completed, Miss Phipps was surely in Denver, and could not, by any possibility, have been the author of a note just written in New York

Miss Burkett, the schoolma'am, occurred to me, and afterward, in slow succession, Mrs. Jameson, the washlady; Mrs. Tom Maloney, wife of the super at the Little Manhattan Mine; Mrs. Packard-McKim, an itinerant book-agent, who had sold me twenty pounds of subscription literature which I had never unpacked, and Miss Loretta Bangs, who served the hungry at Coffee Al's short-order establishment

Of all these only Miss Burkett and Mrs. Packard-McKim seemed equal to the well-written note I had received; and, of all the ladies I could remember, they alone were at that moment absent from the camp. Neither of them, however, had more than a passing acquaintance with me, and neither would have had warrant for writing, "If you are the same Bert Jordan I used to know," etc

In the midst of my puzzling reflections the telephone-bell jingled. The hands of my watch were at eight, and the driver of the automobile was below, punctual to the minute.

"Tell him I'll be right down," said I.

Getting into my fur overcoat—for a man from sunny San Simone those November nights were sharp—I hurried down to the lobby, and was greeted by an individual in a cap and ulster

"Mr. Jordan?" he asked

"Yes."

"This way, please."

He led me to the walk and opened the tonneau-door of an automobile. I got in without remark, and he, equally taciturn, climbed to his seat at the steering-wheel. The machine took the spark without cranking, and we honk-honked northward through the electric mazes of Broadway.

After what may have been a quarter of an hour we turned into a cross street.

glided half-way down a block, and came to a halt in front of a row of high-stoop, brownstone-front houses.

"That's the house," said the driver, pointing.

I got out, ascended the steps, and pulled an old-fashioned bell. A negro maid answered the ring.

"Mistah Jo'dan?" queried the maid before I could say a word.

"Yes."

"Come right in, sah. Dey's waitin' fo' yo'."

They! Then there were others expecting me besides the "Lady from San Simone."

The maid ushered me up a flight of stairs and pointed to a door. "Jes' walk right in, Mistah Jo'dan," she said.

Even in San Simone we treated our callers better than that. As the program seemed to have been arranged, however, I would not fail in my part of it.

The door yielded to my hand, and I crossed the threshold into a room where a lady stood beside a table. She wore her hat and street-wraps, and her face was veiled.

"Ah, Mr. Jordan!" she murmured; "this is good of you."

I had heard that voice somewhere, but where? It was not Miss Burkett's, nor Mrs. Packard-McKim's. Of that I was positive.

While I was wondering I heard the hall door close behind me and a key turn in the lock. I whirled about. A broad-shouldered, heavy-set man was nonchalantly putting the key in his pocket.

"This," said I, "must be an important interview, if we are to have it behind locked doors."

"For the present, please," said this mysterious and bewildering Lady from San Simone, "I must ask you to consider yourself a prisoner, Mr. Jordan."

My temper was quick to rise, and I didn't like this turn the unexpected was taking. A chair stood in front of me, and I caught at the back of it.

"Steady, steady!" breathed the broad-shouldered man, getting around to the side of me and pushing a hand suggestively under his coat.

"Mr. *Jordan!*" exclaimed the veiled woman, stretching out a gloved hand that trembled ever so slightly.

There was apprehension as well as reproof in her voice, and, inasmuch as I had arrogantly turned my back on Charley's advice and the thirty-eight caliber, I sat down in the chair instead of attempting to use it as a weapon.

"And this happens right in New York?" said I. "Well, well!"

My eyes wandered from the locked door to the man, and thence to the girl. Both had seated themselves.

CHAPTER II.

"Your Friend Always."

MY survey of the woman's companion did not show me anything particularly vicious about him. He was middle-aged, and respectability was the keynote of his appearance. Nevertheless, his eyes glinted in the gaslight.

"A lot of things happen in New York," said this gentleman, "that never get into the papers."

"And a lot of things get into the papers," I added, with a swift glance at the woman, "that have never happened at all."

The woman gave no sign, but a mellow appreciation of my words sounded in the man's throat.

"You have the advantage of me in several ways," I went on. "Some of those ways are so obvious they don't need to be mentioned; but it's a question whether, knowing who I am, you two are gaining very much by keeping me in the dark as to yourselves."

"Oh, as to that," said the man, leaning back easily, "I am a lawyer, and my name is Romayne. The lady is my client. She is from a distance, and knows you. If you can't guess who she is, you'll have to await her pleasure in the matter."

"Very good, Mr. Romayne," said I, after a stage wait of which the Lady from San Simone did not see fit to avail herself. "You can at least tell me your pleasure in this other matter that concerns me. I am to consider myself a prisoner for the present—why?"

Romayne's head was on one side, and he was appraising me quizzically.

"You're an odd genius," he remarked irrelevantly. "I've never been west of Buffalo, but I've seen a lot of Western

plays. I must say, Jordan, that you look your part, but your talk has a spurious ring."

"Because I'm not a stage Westerner," I answered. "This lady, as I understand it," and I waved my hand in the woman's direction, "is also from San Simone. She doesn't seem to arouse any wonder in your mind, and I can't see why I should. But all this is wide of the mark," and I stirred impatiently. "I walked into your trap in my usual idiotic manner, and what is to be the upshot of it all?"

Romayne nodded toward the woman, signifying that the rest of the interview was in her hands.

"We don't mean you any harm, Mr. Jordan," said the woman, breaking her long silence. Her voice was more distinct and natural than it had been before, and again my mind grappled with the familiar tones, but could not place them.

"Thank you," I responded dryly. "I'm not worried so you could notice it, am I? We're in the heart of New York, Mr. Romayne is a lawyer of standing, and you are a woman. Considering all these circumstances, I'm feeling fairly comfortable. But"—and here I stiffened in my chair—"don't hem and haw and side-step with me—not for a holy minute. If you have really any business to transact, let's be about it."

Once more Romayne gave a throaty, almost inaudible chuckle. I turned on him in a temper.

"If this is the way you practise law in this town," said I, "San Simone can give you cards and spades."

"Circumstances," he explained blandly, "alter cases. This case—"

But the Lady from San Simone intervened. Her intervention was such as to bring me to the edge of my chair with a jump and a gasp.

"Are you working for Reuben Gollinger, Mr. Jordan?"

"Working—for Gollinger? *I!*" Then I fell back, limp and staring. Why had she touched upon Gollinger, of all men? And why should she suppose that I was working for the scoundrel? There was no compliment in this, and I laughed out the bitterness that rose in my heart.

"And you said in that note," I added, "that you knew me."

Romayne and the woman exchanged glances. What the woman's face showed was hidden by the veil, but what the man's showed was all in my favor.

"What led you to think," I went on, "that I was working for Rube Gollinger?"

"I couldn't understand why you were here at this time," she answered, "unless he had brought you; and I couldn't understand why you would tell such preposterous stories to the reporters."

"I'm a preposterous man, at times, and when the representatives of the papers called on me I tried to make myself agreeable. There was a little method in it, though. Gollinger is in New York—"

"We know that," she interjected.

"And I thought that if I advertised myself as a big success he might hunt me up. He's the kind of a coyote who would do that. I *am* working for Gollinger, in a way—working to get at him and turn him over to the law. You see, I—"

I bit off my words abruptly. How was I to know that these people were not themselves working for Gollinger? I was confident that Gollinger was in the dark concerning recent events in San Simone. Nevertheless, all Cochise County was honeycombed with his hirelings and subsidized agents, and the truth might have leaked out and reached New York ahead of me.

"Go on," urged the woman.

"Not until I know more about you and Romayne," I declared bluntly. "So far I don't like the methods you have been following. For all I know to the contrary this interview itself may be in the interest of Gollinger."

It was hardly out before I was sorry I had said it. The woman's gloved hands came together in passionate dissent, and the lawyer's exclamation showed his disapproval. Yet, surely, I had as much right to suspect them as they had to suspect me.

"No, no!" came vehemently from behind the veil. "Mr. Jordan," and the woman leaned slightly toward me and held out one hand imploringly, "will you not take my word for it when I say that Reuben Gollinger represents a deadly peril which I am eager to avoid on my father's account? If you, also, are

his enemy, then there is a common tie which should bind our interests and our actions together.

"Only let us be sure of you, that is all I ask. Gollinger has brought men with him, evil men who will not hesitate to do whatever he orders. Mr. Romayne knows how careful I must be, and how helpless the law is to protect my father. Tell us just why you are here."

I would have given my block of stock in the Little Manhattan—and it was soaring around two hundred at that very moment—to be able to place that woman. How one of her stamp could ever have crossed my path and not left an ineffaceable impression was more than I could comprehend. Her manner, her tone, the very atmosphere of truth that surrounded her, were enough.

"If you know San Simone," said I, "you must know about Joe Parkis and his Morning Star?"

"Yes, yes," she breathed, still leaning forward, and all attention. "Parkis discovered the Morning Star, and he had no more than laid bare the rich vein when the premature explosion of a charge of dynamite killed him. But what of that?"

There was small doubt but that she had San Simone and its history at her finger-ends.

"Is that all you know about Parkis and the Morning Star?" I asked.

"That was all any one knew up to the time my father and I left Arizona," she replied.

"Well, the whole camp knew that Parkis and I were sworn friends and blanket mates," I proceeded. "We had starved in the hills, and had stood shoulder to shoulder through more dangers than I can tell about. When we were down to fortune's bed-rock we broke company.

"Rube Gollinger grub-staked Parkis, and Parkis went out and found the Morning Star. The grub-stake gave Gollinger a half interest in the Star, and he sent his half-breed, Buck Myers, to help work the 'find.'

"A week ago Buck Myers was caught in a landslide, and it fell to me to pull him out. He died an hour after I carried him to clear ground, but before he died he signed a statement before Charley Phipps and me. It was that statement that brought me to New York."

The blood ran hot in my veins. I could not think of Gollinger and Buck Myers and poor Joe Parkis without hearing my dead friend's voice ring loud in my ears. I paced the floor between the lawyer and the woman, fighting to get the whip-hand of myself.

"What was the substance of that statement, Mr. Jordan?" came the coolly professional voice of Romayne.

That brought me up, and I turned to the lawyer with enforced calmness.

"Why," said I, "Buck Myers discovered that Joe had found a bonanza. Gollinger wanted the whole of it, and Myers was in his pay. The premature explosion of the blast was not an accident. No sooner was Joe out of the way than Gollinger showed a quitclaim deed, ostensibly signed by Joe, and the Morning Star now stands in Gollinger's name."

The girl's horror found vent in a murmured exclamation. Romayne flung himself back and peered at me incredulously.

"It's the truth!" I cried. "Gollinger is a black schemer and a gun-man, but he is clever enough to hire others to do his worst work. Keeping Buck Myers's statement to myself, I began hunting for Gollinger.

"He, together with two of his most desperate men, had left San Simone a week before the landslide that cost Myers his life. Gollinger had come to New York. Parkis was my friend, and that's the main reason why I came on here."

I sat down. The woman leaned one arm on the table at her side, and rested her face on her hand. Romayne toyed with a charm on his watch-chain.

"There's no use," I burst out, "of your keeping me here any longer. Gollinger does not know that Buck Myers has confessed, and if Gollinger thinks I have come to New York with more money than is good for me he'll hunt me up, even though he doesn't take any stock in the yarns the papers are publishing. He may be at the hotel now, and I should be back there."

"You are wrong, Jordan," spoke up Romayne. "Gollinger has other work on hand, and he will not bother with you. Take my word for it. But you can bother with him. We know where he is.

Swear out a warrant and go to his address with a policeman. Better still, meet me at my office to morrow, and I will help you."

"What sort of an ax have you to grind?" I asked suspiciously.

"It's my client's affair," and he nodded toward the woman. "This business of yours is a stroke of luck for us, Jordan. What we want is to get this scoundrel out of the way, and you offer us the very best means we could have."

The lawyer got up, stepped to the woman's side and dropped a light hand on her shoulder.

"Courage, Miss Rayes," said he. "Jordan is a friend in need, and his work is the key to the situation."

Miss Rayes! I started up, amazed that the woman's identity should have evaded me for so long.

Slowly she put back her veil, revealing a fair, exquisitely perfect face, two luminous blue eyes, and a wealth of shimmering, yellow hair.

"Sheiba Rayes!" I exclaimed.

"Your friend always," she returned, softly smiling, and drawing off her glove to offer me her hand.

CHAPTER III.

A Common Cause.

SHEIBA RAYES! The name itself was so odd it should have brought the girl to my mind. And yet I had met her but once, in Arizona, although I had heard much about her, as she had probably heard a good deal about me.

Our first meeting had been at a waterhole among the barren hills of Cochise County. She and her father and I had found the same water for our camp, and there we passed a dramatic night.

Newton Rayes I remembered very distinctly—gaunt and somber and gray-haired, with the eyes of a dreamer. He and Sheiba were traveling alone, by wagon, pointing straight into the waterless hills, where their inexperience promised trouble, if not tragedy. They told me nothing of their business, but I managed to draw them out a little, discovering enough so that I tried to dissuade them and turn them back.

The lure of gold, in its most romantic form, I was convinced, was drawing Newton Rayes into dangers he could not comprehend. The Southwest is full of fabulous "lost mines," and a tradition, or a dog eared map, has led many a miner into a labyrinth from which he could not extricate himself. Something like this, I was positive, lay at the back of Newton Rayes's wanderings.

My conversation with Rayes and his daughter took place at our camp-fire. I had the wisdom born of several years in the desert, but they would not listen to me. Next I offered to go with them and give them the benefit of my experience, but this merely aroused their distrust. Finally I gave up, and went off to my blankets.

Some time during the night I was awakened by a scream from the girl, and a startled cry from the man. Shouting encouragement, I hastened toward their wagon, and was met by a fierce oath and a bullet. The shot worked no more injury than the oath, and the echoes of both were lost in a diminishing tattoo of hoofs.

The explanation given me by the Rayeses was not wholly satisfactory. They had awakened to the fact that there was an intruder about their wagon, and this intruder had tried to rob them. Their cries had brought me, and my presence had saved them.

They told me no more, but from that time until morning I heard them talking together, earnestly and in low voices. At breakfast Sheiba Rayes told me that she and her father had concluded to go back to San Simone. This sudden determination had been caused by nothing except that unpleasant experience of the night.

I rode a short distance with them on their return journey, and then meeting an outward-bound prospector who gave me the sad news about my friend Parkis, I turned aside to go to the Morning Star. Weeks later I reached San Simone, only to find that Newton Rayes and his daughter had left the place. They had spent but a few months in the town, and appeared to have been on friendly terms with Gollinger.

Now, for a second time, I had met Sheiba Rayes, and a common cause against Gollinger had brought us together. Her father, she had said, stood in

peril of the man whose grip was relentless upon the best "prospects" in Cochise County, and I was quick to connect this peril with the mysterious business that had carried them to Arizona, months before

"Why were you hiding your hand, Miss Rayes?" I asked. "What was the need of signing that note so vaguely, of locking that door on me, and of keeping me in the dark concerning yourself for so long?"

"There are some things, Mr. Jordan," she answered, "which you do not understand, and which I can't explain. My father is in deadly fear of Gollinger; that much you know.

"We do not want Gollinger to know that he is anywhere near us, and if it turned out that he had brought you here from San Simone to help him you ought to understand why it was best for me to hide my hand. As soon as Mr. Romayne and I felt that we could trust you I let you know at once who I was."

"But this farce about making me a prisoner?" I persisted.

The lawyer smiled. "There is an officer across the street," said he, "and I have only to step to the window and wave a hand to bring him over here. If I had made up my mind that you were really helping Gollinger, you would have slept in the police station to-night, and for many more nights. Of course we couldn't use the officer until we were sure of you, one way or the other."

"Can you arrest a man, out of hand like that, in a town like this?"

Romayne nodded.

"On what charge?" I demanded.

"Conspiracy."

"If you are so anxious to get Gollinger out of the way, and know where he is, why don't you arrest him on the same charge?"

"Gollinger has too much influence, and too much money. He would have been bailed out, and our purpose would have been defeated. But a murder charge, like yours—" Romayne finished with a shrug of his broad shoulders. "We've got him now, I think. That signed statement of Buck Myers's, attested by witnesses, ought to be enough. Have you the document with you?"

"It is at my hotel," I answered.

"It is straight to the point?"

"There is no getting around it, Mr. Romayne."

"Bring it to my office in the morning." He got up. "I will go to the window," he added, "and contrive to let the officer know we don't need him."

"Just a minute," I interposed. "If you didn't need a warrant for me, why should you need one for Gollinger?"

"The cases are not identical," said Romayne, halting and turning around. "The papers are full of you, but you are here on false pretenses, anyhow, and—"

"I'm honest, for all that, while Gollinger is a shark and an assassin."

"It's only what you can prove against a man that counts, Jordan. As I said before, Gollinger has money and influence. But what were you going to suggest?"

"That we lose no time in getting after Gollinger. Don't send that officer away, but let's go with him to-night, and have Gollinger arrested and put behind the bars."

A flush of excitement came to Miss Rayes's pale face.

"Why not, Mr. Romayne?" she asked. "It will be a load off my father's mind as soon as he knows that Gollinger has been arrested, and is no more to be feared. And you know what a relief it will be to me."

The lawyer took a cigar from his pocket and clipped off the end thoughtfully.

"Perhaps it will be best," he observed at last, "to wind up this affair to-night. There need not be anything irregular about it, however. The night is young, and Gollinger may be away from his rooms. By the time we go to your hotel and get that statement, Jordan, and then go to the nearest police station for a warrant, it will probably be late enough to make sure of finding Gollinger in."

He picked up his hat, and proceeded to take the key from his pocket and open the door.

"Where is your father, Miss Rayes?" I asked, not with a desire to be curious, but merely to show a friendly interest.

"He is not in the city," the girl answered. "He has gone to a place where he thinks he will be safe"

"He is well?"

"Yes, but terribly worried."

She did not offer to tell me her father's reasons for fearing Gollinger, and the same constraint manifested itself that I had seen by the water-hole in far-off Cochise County. Well, whatever the business was, it was none of mine. Nevertheless, I felt hurt to think I should have confided in her so freely, and failed to secure a corresponding amount of trust.

Miss Rayes must have divined my feelings from the expression of my face.

"We are fighting in a common cause, Mr. Jordan," she said earnestly; "and you will find, before many days, that I am not keeping anything back because I lack faith in you."

"If I can help you in any way you will not hesitate to call on me?" I asked.

"My father and I may call upon you soon for services you little dream of. No one knows Cochise County better than you do, and if our plans against Gollinger succeed, perhaps we can make it worth your while to help us with your knowledge.

"You will be well repaid, Mr. Jordan," and a smile flitted about her lips as she spoke. "It may be that you will have a real foundation for some more stories, even more dazzling than those you have already given to the reporters."

No man who has chased his golden hopes through waterless hills and over scorching deserts could hear such talk without a stir of the pulses. And yet, believing I knew on what slender grounds the girl based her veiled promises, I was not credulous enough to take her words at their face value.

"It's reward enough to be able to help you," I blurted out, and Romayne's throaty chuckle came to me and aroused a feeling of quick resentment.

"We shall see," the girl answered quietly. "Good night, and good luck to you"

CHAPTER IV.

A Call to Action.

EVEN when a man has a thing coming his way, it won't do to be too sure of it, for there's a possibility that it may side-step and duck out from under his gripping fingers. This reminds me of Charley's recipe for cooking jack-rabbit. "First get your jack-rabbit," said he. And when you reflect that a jack-rabbit can run rings around a streak of lightning, it will be seen that the first part of the instructions is not the least important.

So confident was I of our success in bagging Gollinger, that I had begun laying my plans to assist Miss Rayes and her father before the automobile had left the cross-street and whirled into Broadway. The thought that I was so quickly accomplishing the work that had brought me to New York filled me with profound satisfaction; and the other thought that Miss Rayes and I were renewing our short Arizona acquaintance, with chances in favor of my being able to serve her in a useful capacity, sent thrills of happiness along my tense nerves.

I was thirty, but the blank desert keeps a man young and impressionable. Sentiment sleeps in the vast gray spaces, and when it awakes and once more takes hold upon life it is always at the exact place where it left off.

For years I had been vaguely conscious that existence owed me something apart from the hunting of gold and the finding of just enough to reward the search. Here, in the East, I was beginning to divine what that something might be.

Strange, I thought, that Sheiba Rayes had come and gone out of my Arizona life so suddenly and completely. She was all that my fancy had ever pictured any woman, and only the power of the desert to lull sentiment to slumber could account for my heedlessness months before.

My reflections were carrying me swiftly into foolish extravagance, when I was aroused by the stopping of the automobile. We were at the hotel.

Hastening up to my room, I removed the written statement of Buck Myers from my satchel and hurried back to Romayne and the officer. The officer sat in front with the driver, while I occupied the tonneau with the lawyer.

With the aid of an electric torch, obligingly furnished by the officer, Romayne read the paper I thrust into his hands.

"Good!" he muttered, as he snapped off the light and returned the torch to its

owner. "This Gollinger," he went on to me, "must be an audacious scoundrel to carry on with such a high hand."

"He's clever at covering his tracks," I answered.

"Don't they suspect his real character in San Simone?"

"Well, you can suspect a man of being a horse-thief, but if you can't prove it on him, what's the odds? Gollinger, as you say, has money and influence—a whole lot more in Cochise County than he has here. He used to be a gambler, and that was an education that helped his nerve.

"Then, too, he has a way of getting friendly with people and putting those who can help him under obligations to him. When I wrote out that statement, and Buck Myers signed it, I knew I'd have to make it pretty strong if I got Cochise County to take any stock in it."

"Hasn't the man any conscience—any heart?"

"Conscience! Heart!" I had to laugh at the lawyer's simplicity. "Mr. Romayne, Rube Gollinger would cheat his own mother out of her last cent, if the mood happened to strike him. He's a degenerate. Cards, and the rough country, and the hunger for gold, have made him so. He'll stick at nothing to get what he wants. This statement of Myers's proves that."

Romayne became silent, and sat musingly in his seat until we drew up in front of the police station. Here, after a short delay, we secured our warrant; then once more took to the touring-car. Twenty minutes later we were in front of a hotel where, the lawyer assured me, Gollinger had been staying ever since he had reached the city.

It was a very modest hostelry for one of Gollinger's means, but the man was not given to ostentation, and it was quite probable that he wanted to keep in the background during his stay in the city. Certainly this would be his method if he were planning any roguery against the Rayeses.

Since I was the one who would arouse least suspicion, it was arranged that I should go into the hotel and discover whether Gollinger was in his room. The reply I received from the clerk was a facer. Gollinger, I was told, had left New York that morning.

My disappointment was so keen that it stunned me. Recovering a little, I made a few more inquiries. The clerk did not know where Gollinger had gone. He had simply paid his bill, said that he was going out of town, and left the hotel with his luggage.

I carried this disquieting news to Romayne, who muttered to himself and sat silent for a space.

"If that is true, Jordan," said he finally, "there is nothing more we can do. He may have found out that you were after him, and so have taken the bull by the horns and got out as quickly as he could; or he may have gone to—"

The lawyer's words faded into silence.

"I wish you would look around and find out what you can," said he to the officer, handing him a card. "There's my telephone number. Call me up in an hour and let me know how you succeed."

The officer got out and went into the hotel. I was still standing beside the car.

"You might as well go home and go to bed, Jordan," the lawyer added to me. "I'll run back up-town for a word with Miss Rayes, and if anything further develops I'll let you know."

"Have you any idea where Gollinger has gone?" I queried.

"I've an idea where he may have gone, but it's only a guess, and we want something more definite. Good night."

The car turned from the curb, circled northward across the street, and whirred away. Gloomy and dejected, I set my face toward my hotel.

This failure to find Gollinger seemed to upset all the plans I had formed for helping Miss Rayes. Everything had hinged on Gollinger's arrest, for until he was in restraint somewhere the girl and her father would not feel free to carry out their designs.

How one man could so successfully intimidate another could not be understood by any one not familiar with the character of Gollinger and of Newton Rayes. Gollinger was a masterful villain, hesitating at nothing where his cherished aims were concerned. Rayes, on the other hand—I had gathered this information in San Simone—was a bookish old man, so diffident that an enemy like Gollinger would inspire fear out of all proportion to the real peril.

I slept poorly that night, which was sufficient evidence of my state of mind. Following breakfast, next morning, I repaired to the lobby and soothed my nerves with a cigar while waiting expectantly for a telephone call. Much to my relief, the reporters, as well as the others whose interest in me had been aroused by my foolish romancing, gave me a rest.

No telephone call came. I had finished one cigar and started on another, when my growing impatience was set at rest by a messenger-boy. The messenger was conducted to me by one of the hotel employées, and offered a sealed envelope and his book. I signed the book and tore open the envelope. The contents of the note was brief but explicit:

> If you wish to help Miss Rayes, take the first train for North Scituate, Massachusetts. Meet her at the life-saving station on North Scituate beach, not later than nine to-night. Put a gun in your pocket and be prepared for any emergency. Would call on you personally, but have not the time. Am leaving the city myself.
>
> ROMAYNE.

Here, at least, was something tangible. It called for action, and action was the one thing my spirit yearned for.

North Scituate, Massachusetts! I had never heard of the place before. Cramming the note into my pocket, I hurried to the desk to consult with the clerk about ways and means.

CHAPTER V.

The November Gale.

BEHIND a breakwater, and a reenforcing ridge of beach-stones thrown up by the tide, the life-station at North Scituate beach lies snugly enough. Nevertheless, a sixty-mile gale from the east made it shiver in every part, and it seemed to crouch like a living thing behind its barricade, terrified by the awful uproar of the sea.

The breakers were pounding almost on its walls, and the spindrift, torn in driving sheets from the waves, hurled itself far inland and beat in a white mist about the windows. Huge waves frothed high over the breakwater, tumbled pell-mell over the ground to right and left of the station, and gullied seethingly back toward the beach.

It was a wild night for a native to be abroad, let alone a stranger. Fiercely whipped by the wind, and drenched by the slanting rain, I had gone adrift in the tempest. Passing cottages, deserted at that season, and looking forlorn enough amid the tumult of the elements, I bent my head to the blast and fought my way onward, searching for a glow of light somewhere ahead.

Reaching a point where a mountain of granite shouldered back the sea, I turned my back to the wind and halted to breathe and to get my bearings. My instructions had not been very complete to begin with, but if this mountain was the Glades Rocks, then I was a mile or more too far north. While I braced myself against the gale, and waited for my next move to take form in my mind, the wind hooted and roared about the summit of the rocks, weirdly accompanying the deeper diapason of the surf.

Suddenly a light gleamed out blindingly in front of me, and through the mist a figure in rubber-boots, oilskin-coat, and sou'wester bulked blackly against the shivering gloom. The figure was holding up a torch that burned redly in spite of wind and rain, and brought out lividly a small patch of light.

"What are you doing here?" roared a hoarse voice.

The wind caught up the voice, buffeted it here and there, and finally scattered it landward in splintering echoes.

"Looking for the life-saving station," I called back.

"Ye're too fur north. Them's the Glades Rocks." He nodded his streaming sou'wester toward the uplift where the storm-devils were howling. "Them others is the Inner Oshers." He gave another inflection of the head, lower this time. "There's no accountin' fer whims, but if you're sot on goin' to the station you can come along wi' me."

He slapped a watery hand against the bottom of the torch, and the light went out. "I'm one o' the coast patrol," he added, putting away the torch; "an' I am jest travelin' back to the station from Glades P'int."

I wasn't at all particular where he

came from, or how he got there. He knew the country, and he was with me, all of which meant that, sooner or later, I should be at the life-saving station.

"When did you leave the station?" I asked, as we splashed along over the storm-beaten ledges.

"This is the sunset patrol, though I'm tellin' ye there warn't much sun in sight when I left."

"Was there a young woman at the station when you pulled out?"

"Not as I seen."

When we reached the beach cottages we passed to leeward of them, and my companion paused to relight his lantern. Half an hour later we were at the breakwater, with a ruddy glow peering cheerfully out at us from the windows. I noted the situation of the building as we splashed our way to the door and felt the bite of the spindrift in our faces. Never was a haven more welcome to a storm-tossed sailor than this to me.

As the door opened, and my companion shoved me into the house, a cry of relief came from somewhere close at hand. It was a woman's voice, and I knew it must be Sheiba Rayes's, but for a moment the light blinded me, and I could not see. I felt a hand tugging at my dripping coat.

"Is it you, Miss Rayes?" I asked

"Yes, Mr. Jordan," was the answer. "It's such an awful night I was afraid you wouldn't come"

"You wanted me, and that was enough. I'd have come if it had been ten times worse."

I was able to see her, then. She had faced the storm as I had, and she had not been any too well protected against it. The bottom of her skirt was wet, and her shoes were torn by the sand and gravel.

Her head was bare, and her yellow tresses drooped disorderly about her slim white throat. There was apprehension in her face, but it was determined, also, and her eyes glowed resolutely. Her hat and cloak, drenched, as were my own, lay over a near-by chair.

Presently I realized that we were undergoing the curious scrutiny of four pairs of eyes. I turned, and a sturdy, square-shouldered hulk of a man stepped toward me.

"I'm Cap'n Seymour, in charge of this station," said the man. "It's a fearsome night for two landsmen to be on the beach—'specially a woman. Wust storm we've had since the night the pilot-boat Columbia was heaved ashore and landed right on top o' one of them summer cottages. Remember that, Harvey?" He appealed to the guard who had come in with me.

"I do that," answered Harvey. "This gale 'u'd up-end a liner on the beach, if she happened to be handy."

"We've got to go south, toward Scituate Harbor," Miss Rayes was saying to me. "There's a cottage there, Mr. Jordan, which we *must* reach. Father is in the cottage, and I'm afraid that Gollinger, or some of his men—"

Her voice broke, with a tearless sob. Bravely collecting herself, she went on: "Captain Seymour says it is dangerous for us to make the attempt." She threw back her slender shoulders, and flung up her head. "Are you willing to face the peril, and help me?"

"I'm here to help you, Miss Rayes," I replied; "and you can count on me for anything." Her hand went out to mine.

"The young leddy," spoke up Captain Seymour, again giving us his attention, "says as how she wants to go to Mrs. Mayfield's cottage. It ain't in reason, sir—such a trip fer a woman on a night like this."

"I'm going with her, captain," I answered, still clasping the soft white hand.

"You'll not be much help," averred the captain, giving me a quick sizing and, apparently, forming a rather poor estimate of my abilities. "You don't know the road, mate."

"I know it," cried Miss Rayes.

"In fine weather, maybe; but, I grant ye, you couldn't keep the way on a night like this. Jest listen to that."

The house shivered, the great waves spouted in boiling torrents over the breakwater, and the spindrift slapped at the windows. The girl cowered closer to me, her blue eyes turned upward appealingly

"We must go, Mr. Jordan," she whispered; "and soon."

"I could go alone"—I began, but she interrupted me vehemently.

"No, no—we must go together! You

do not know the way—you do not know the house."

She drew her hand from mine, and caught my coat in tremulous appeal.

"We'll go," said I cheerily; "you and I."

"But listen, mate," put in the captain. "It's the wust beat on the hull Atlantic coast, this 'un from here to Scituate Harbor. It lays on a ridge, with a flooded marsh on the landward side, and the surf jumpin' at ye with ev'ry step from the beach

"If ye try to git away from the combers, ye drown in the marsh. It ain't in reason fer you two to attempt it. Is it, Harvey?" Once more he appealed to the guard.

"It's on'y crazy foolishness, cap," agreed Harvey.

"We *must* go," breathed the girl through her tense lips.

"Bound and detarmined, are ye?" growled Captain Seymour, tossing his hands. "I been fifty year on this coast, man an' boy, an' I never see a wuss night."

"We're going," insisted the girl. "If the patrol can get through, we can."

"Wait till the next guard starts out, then, an' he'll help ye."

"How long before he starts?" was the girl's anxious query.

The captain consulted a ship's clock on the wall. "It'll be two hours," he replied.

"We can't wait; we can't wait," said the girl, clutching her hands. "We ought to start *now*."

I could see that Miss Rayes's mind was burdened with some terrible foreboding, and that every minute's delay only added to her agony.

"What's the importance of it, anyway?" demanded the captain.

The girl did not answer. "Chances are," proceeded the captain, "when ye git to Mrs. Mayfield's cottage ye won't find it." Miss Rayes looked up with a soundless gasp of her tense lips. "There'll be more'n one cottage go out to sea this night. How many went out the night the Columbia came ashore, Harvey?" he asked, with a look at the guard.

"I disremember," said Harvey; "but it was a lot."

I saw that what the captain had said merely increased Miss Rayes's fears and impatience.

"We'd better start," said I, picking up my waterlogged fur coat.

"If ye're bound and detarmined to fly in the face of Prov'dence," observed the captain, "I'll lend ye some oilskins and sou'westers, and let ye take a lantern and a patent torch.

"Ye'll have a rough time of it, though, and I'll bet ye turn back afore ye git half way to the Mayfield cottage. But I reckon ye won't think it's as bad as I say till ye try it fer yerselves."

While the captain was getting the oilskins and sou'westers Miss Rayes drew closer to me.

"I—I have a terrible presentiment that something is going to happen at the Mayfield cottage to-night," she whispered shiveringly.

"You say your father is there?" I asked

"Did Mr. Romayne tell you?"

"No; but I had guessed that much before you told me. Is he alone?"

The girl bowed her head. Her frail form was shaken with grief and fear, and a pang of pity rushed through my breast

"Bear up, Miss Rayes," I murmured, touching her shoulder reassuringly; "and don't let your imagination play such havoc with your nerves. You are going to need all your strength and courage."

I saw the quick struggle that brought her the mastery over her shrinking spirit, and my heart went out to her in a wave of sympathy and admiration.

"Here they be," said the captain, coming at that moment with the oilskins and sou'westers. "They'll be some too big for the young leddy, but I calc'late she can make shift to use 'em."

The raincoat would have gone twice around the girl, and it covered her completely from shoulders to heels. With a strap we belted it in at her waist, and she pinned it up at the bottom so that her feet would be freer for walking. The sou'wester was secured with a cord under her small chin.

As soon as I was equipped and ready Captain Seymour instructed me in the use of the patent torch.

"Carry it inside yer coat," said he.

"When ye want to use it, pull it out and give it a sharp slap—so." He illustrated the method, bringing a bright flare to the end of the rod. "Ye put it out like this," he went on, with another slap; "and there ye are. Water can't drown the fire, and wind can't blow it out."

I thrust the torch into the breast of the oilskin coat, and took the lighted lantern, which the captain next handed me.

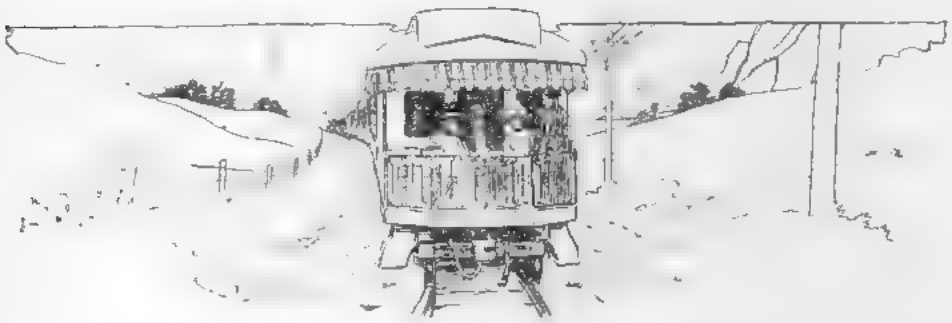
"Got matches where ye can git at 'em?" he inquired. "That lantern'll be goin' out every twicet in a while."

"Yes," said I.

"Now, don't be foolish. If ye find it's too hard sleddin', turn back."

With that he opened the door. The swirling mist eddied into the room and struck sharply in our faces. Bending our heads to it, we passed out into the roaring night.

(To be continued.)



WILL PROMOTE THE SCREW SPIKE.

A Newly Tested Invention Which Eliminates Two of the Usual Objections to a Valuable Article.

AU TRA-KAH is not the name of a patent medicine, nor of a Hindu yogi, but of a very up-to-date and satisfactory machine, the nature of which a careful examination of the name will reveal. The machine is a new spike-driving invention.

Considerable difficulty has been met in the attempt to obtain a spike which would not damage the wooden tie and yet could be driven economically. For the latter reason the screw-spike, which would otherwise have been the ideal spike, has failed to find favor.

Its grip upon the wood is much firmer than the plain spike, while at the same time the screw does not impair the fiber of the wood as does the latter. The trouble and time involved in placing the screw spike in place, however, have been an unsurmounted difficulty in the way of its adoption, until the invention of the au-tra-kah.

The machine, which received a satisfactory test on the Santa Fe a few months ago, in appearance resembles a railway motor car with *vis-à-vis* seats. It is driven by a two-cylinder, twelve-horse-power automobile gasoline engine.

To quote from a newspaper report describing the machine:

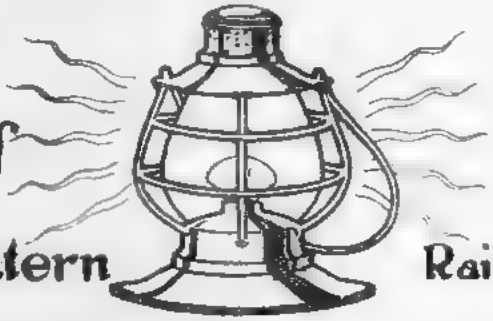
"When working, a flexible shaft running to a special gear-box drives a high-speed drill for drilling holes in the ties, while a telescope-shaft from the other end of the car runs a special reduction gear and clutch for driving the spikes.

"The method of operation is for one man to go ahead, drill holes, and start the spikes, with the other fellow to follow the car and screw the spikes. The friction-clutch is set so as to release when the head of the spike sets hard against the nail, and thus avoid reaming out the hole. Two men with this machine are able to put in spikes faster than the ordinary section-gang can place the ties."

The machine can make forty miles an hour ahead and ten miles reverse, and weighs only four hundred and twenty-five pounds.

WHAT'S THE ANSWER?

By the Light of the Lantern



Questions Answered for Railroad Men

ASK US!

EXPLAIN the working of the Walschaert valve-gear.

A. J. M., Chicago, Ill.

A thorough explanation of this gear, assuming that you are unacquainted with the finer points of valve motion, would require a great amount of space in this department, but a general explanation may give you the desired information This motion differs from the Stephenson link, which has been the standard practically from the birth of the locomotive, in that it employs no eccentrics and the entire mechanism is on the outside of the engine

The motion of the slide valve, or piston valve, as the case may be, which admits and exhausts the steam from the cylinders, is imparted by a combination derived from the main crank-pin and the cross-head The motion imparted by the cross-head is equal to the outside lap on the valve, plus the lead desired, and this of course must remain constant, due to the unvarying stroke of the cross-head

The actual travel of the valve is secured through the medium of a crank, rigidly fixed to the main crank-pin, that is, the pin to which the connecting-rod is attached. The revolution of this pin swings the link in an arc, the length of which is dependent upon the throw of the crank mentioned. The link contains a block, similar to the Stephenson motion, and full travel of the valve is secured by the block being in either extremity of the link

Should the block be in the center of the link, the valve is moved only by the cross-head; that is, the sum of the lap and lead The adjustable feature, or cut-off, is secured by moving the reverse lever in the cab to bring the block away from the extremities of the link, which latter, of course, provides for forward or backward motion, dependent upon whether the block is above or below the center of the link.

This motion is rather complex, and no better advice could be given you than to study it out on the locomotive itself. It is not at all difficult to find examples of the Walschaert motion in every-day practise. It has, in fact, been practically adopted by the Pennsylvania Railroad as the standard valve motion for all new engines, and we are inclined to the opinion that it is also adopted by that road for all engines which pass through the shops for extensive repairs.

There is no question but that the Walschaert motion possesses advantages over the Stephenson link. One of the most prominent is that since there is nothing underneath the engine except the frames, axles, driving-boxes, and wheels, the repair work in the shops and roundhouses for these parts is greatly facilitated, and, furthermore, it permits the strengthening of the frames by the introduction of cross braces between them, which latter is a very important consideration from a builder's or designer's standpoint

There is also no doubt but that the eccentrics of the Stephenson link motion, being

generally placed on the main axle, are subject to severe pounding by the main, or connecting, rods, which treatment has a tendency to develop flat spots on them, and also to jar nuts loose on eccentric-straps and motive work generally. The trend of the times in locomotive building is toward the general introduction of the outside, or "monkey," motion, which is another name for the Walschaert, as, in addition to the advantages enumerated, it is accessible to inspection at all times by the engineer and shop force.

KINDLY tell me how I could become a good locomotive engineer? How should I start in, and at what age? Where do I go, and whom should I ask for a job which would lead to this position? A. H., San Francisco, Cal.

This query has been answered previously in much detail, both in this and in the Self-Help Department of the magazine. "The Making of an Engineer," in the latter series, which appeared in July, 1907, would be of value to you. As you are only fifteen years old, we think you are too young to leave school, unless compelled to by financial considerations, and it is very improbable that you could secure employment from any master mechanic except, possibly, as a messenger-boy about the shops.

As the majority of roads insist on twenty-one years as a minimum age for firemen, our advice would be to secure, if possible, employment about the shops as a helper until you are old enough to apply for the other position. This employment will post you sufficiently, if you are observant, on points about a locomotive which every engineer and fireman ought to know

In regard to the job on the right hand side of the cab, which is your ultimate desire, we would say that you must travel a long and rocky road, but once in the service as a fireman, the goal is obtainable through perseverance and good service. One more thing should be borne in mind: Many young men of your age, attracted by the glamour and romance associated with that calling, jump rashly at the conclusion that they would like to be engineers, losing sight of the fact that the latter represent the survival of the fittest, and that the years of training are staggering in their hard realism and their demands on body and brain.

ARE locomotive firemen required to have watches on the Santa Fe? If so, what kind? That is, how many jewels are required?

(2) What is a journeyman?

(3) What are the wages of stationary engineers in Kansas City and vicinity?

E. A. L., Lawrence, Kans.

(1) They were required to have them, and probably are yet, as rules tending toward increasing the efficiency of the service are not usually relaxed. Cannot say as to the watch specified, if any, as the ideas of different inspectors vary, but any standard movement, retailing for about thirty-five dollars in twenty-year gold-filled case, would no doubt pass muster. In order that you may be advised of the exact Santa Fe requirements in this line we would suggest that you write any division superintendent on that system.

To depart somewhat from your direct question we would say that so important is this matter of watches in the eyes of Southern railway officials that, in addition to all men in the train service, hostlers must also carry approved watches, provided their work in any way brings them in contact with main-line tracks, or any other tracks where scheduled trains are running. It is, of course, superfluous to add that, in the interests of safety, this procedure is eminently correct.

(2) Many years ago, when an apprentice finished his "time" it was considered advisable for him to travel around among other shops working at his trade, to gain a varied experience which the home shop could not afford. Thus the designation "journeyman" arose, and it has clung persistently, notwithstanding the procedure to which it refers has fallen practically into disrepute. Although the name really applied to graduates from all trades, it has become particularly identified with machinists.

(3) About three dollars and a half per day.

N. H. G., Bayonne, New Jersey.—The average pay of brakemen and firemen in the section to which you refer is two dollars and twenty-five cents to two dollars and thirty-five cents per day. Chances for employment are always dependent on business conditions. It is best to be around the office of road foreman of engines or trainmaster when you know that they are taking on men, because the fellow on the spot generally gets the job, other things being equal. The engines on roads through Kansas burn coal, and you will find practically every known type in use.

CAN a person join the Machinists' Union before becoming a qualified machinist?

(2) Who is the roundhouse foreman at Belen, N. M., on the Eastern Railway of New Mexico? F. D. P., Dallas, Tex.

(1) The aim of the International Association of Machinists is to keep the personnel of the organization on a high plane, and to include in its ranks only thoroughly skilled machinists from the different subdivisions of the trade; locomotive, marine, and general men, which latter would broadly imply stationary engine machinists, toolmakers, automobile machinists, etc., etc.

So far as membership in the organization is concerned, we are under the impression that any man actually carried or designated on the pay-roll of the company where employed as a machinist, is eligible, but you can settle the matter definitely by taking it up with the secretary of the nearest I. A. M. lodge, no doubt in Dallas, where they would be pleased to advise you.

(2) Cannot find any record of roundhouse foreman at Belen. Mr. Thomas Booth, mechanical superintendent, is stationed at Amarillo, Texas, which point is also the address of the operating officers.

C. S. B., Valley City, North Dakota.—We think that if you would take up the matter of privately owned switch-engines at Minneapolis and St. Paul with Mr. J. H. Foster, assistant general superintendent of the Chicago, Milwaukee and St. Paul Railway, Minneapolis, Minnesota, he would give you the desired information. Personally we do not recall other than contractors' engines at those points.

J. B. F., Dutton, Florida.—You can secure a telegraph sounder and key, mounted on the same base, with battery and wires complete for practise purposes, at a very reasonable rate from any of the large dealers in electrical supplies. Consult the advertising columns of trade papers for their addresses.

TO whom should I apply for the position of passenger brakeman on the N. Y., N. H. and H. R. R.?

(2) How old must an applicant be for this position?

(3) Does the above railroad employ inexperienced men?

(4) What is the average pay?

A. A. T., New York, N. Y.

(1) To any trainmaster; for instance, P W. J. Smith, Grand Central Station, New York, New York.

(2) Twenty-one years.

(3) We think they have a ruling now by which the freight men have a chance in passenger service if they want it. They did, however, employ inexperienced men on the eastern end of the road within the past three or four years, that is, men who had not seen previous freight service.

(4) About two dollars and twenty-five cents per day of one hundred miles or less.

A. R. M., Toronto, Canada.—We cannot tell you any more about this enterprise than you have already noticed in its extensive advertising matter. The only way to get definite information, especially if you are a stockholder, would be to write direct to the president of the road, whose address you no doubt have. If building operations are suspended, it may be because the full subscription has not been realized for the stock; at all events, you no doubt realize that comment from us at this long range would be of little value.

B. R. W., San Francisco, California.—See reply to "A. R. M." above. The Simplon tunnel in the Swiss Alps is the longest on record, the total length, with the cuts, being over nine miles.

M. F. B., Roseville, California.—Mr. C. H. Gaunt is superintendent of telegraphs at Topeka, Kansas, on the Santa Fe, and Mr. B. F. Frobes holds the same position at Salt Lake City, Utah, on the Oregon Short Line. It is not in accordance with our policy to comment on the standing of any road with the various labor organizations.

WILL you explain the temperature that a car-journal must reach before there is any danger of its causing trouble? Has there ever been any device patented for the prevention of a journal from overheating? Is the field for invention open to any device which will prevent a hot box? E. R., Maynard, Mass.

Journal brasses are lined with an anti-friction metal, which, being softer than the journal on which it runs, will maintain an even, nominal temperature so long as the journal receives the lubricant from the packing in the journal-box wherein it is enclosed. As this lining of the brass is made of comparatively soft metal, the temperature of the bearing need not rise above 175 degrees F., before there is likelihood of trouble.

It would be impossible to state the exact fusing temperature, because the mixture of soft metal employed for the liner varies with the different ideas of motive-power management. It is sufficient to say that it

will not fuse or give any trouble if the journal-box is dust proof, and properly packed. There are several patented devices on the market to guard against hot boxes.

These are in the way of journal-boxes, and one very prominent example which is in extensive use has done much to overcome this source of trouble. It accomplishes its purpose through a clever interior arrangement, whereby the packing is better distributed around the journal, and more uniform lubrication effected. The whole story, to sum up, is really in the packing, because the mixture for the metal liner of the brass has been proved adequate by countless experiments and long and carefully tabulated observations.

Neglect is the true and unfortunate cause of the majority of hot-box troubles, and, consequently, they are more noticeable in connection with freight-cars, but even then, when it is considered how very few failures do occur from this source, when compared with the total freight-car movement of any large road, it goes without question that the appliances must be adequate.

Referring to the last sentence in your general question, if, after viewing this matter from every conceivable angle, you can evolve any device which will dispose of the hot-box problem, you need feel no financial concern for the future of yourself or your descendants. The field is wide open, but remember that, whatever you do, it must be as cheap at least as the appliances now in use.

O. J. G., Chicago, Illinois.—We are sorry that you did not advise us definitely what particular branch of railroading most appeals to you, as there are divisions and subdivisions in an endless chain. Your letter indicates that your training has been in a clerical capacity, and as all officials employ clerks, we can do no more than say that an application might be addressed to the general superintendent of any road passing through Cleveland.

This official might perhaps refer it to some subordinate in need of such help. As you have had railroad experience, your best procedure would be to have the official you last worked for recommend you to some official in the Cleveland territory. No doubt you are better posted than we are as to the usual fate of an unsupported application for employment.

IS it not a fact that the "follower-head" of an engine travels faster in the rear end of the cylinder than in the fore end? C. G., Wellington, Kans.

We are handicapped on the start through the wording of your question, as we are in doubt as to whether you mean cross-head or piston-head, or whether you assume the engine to be moving ahead or backward, *i.e.*, under or over. We will assume, however, that your inquiry has reference to a locomotive-engine running ahead, and starting from the front end of the cylinder toward the back end, which would necessarily on that stroke cause the direction of the main rod to be below the center.

The follower-head, assuming that the locomotive is not equipped with a solid piston-head, is still bolted to the head, and must be regarded as part of the piston. The question, under these conditions, then becomes: "In which part of the cylinder does the piston move the faster?"

With the engine on the dead forward center, the main rod is about on a horizontal line drawn through the driving wheel centers, and as the crank-pin, to which the main rod is attached, moves around and down as the wheel turns forward, the main rod must necessarily assume a considerable angle when the crank-pin arrives at its extreme low position, in other words, when the wheel has completed one quarter of a turn.

It is, therefore, obvious that the piston with the cross-head must move a sufficient distance past the middle of the cylinder when the wheel is on the lower quarter, to compensate for this angularity of the main rod; in fact, in an engine of, say, twenty-eight-inch stroke of piston, the piston must move about fourteen and three-quarter inches, to bring the main pin on the exact bottom quarter. Now, in completing the stroke, or remaining half-turn, which will bring the piston to the extreme rear end of the cylinder, the angularity of the main rod is diminishing, as it is approaching, instead of receding from a straight line, and is thus assisting the general scheme in so far that the piston will now move only thirteen and one-quarter inches to arrive on the back center.

Therefore, with the engine traveling ahead at sustained speed, it is evident that the "follower-head," or piston, travels faster in the fore part of the cylinder, and slower in the after part. On the return stroke, under the same conditions, it will travel faster in the after part, always arriving at a dead stop at either end of the stroke.

G. L. N., Bessemer, Alabama.—Write "Railway and Locomotive Engineering," New York, New York, which journal handles an extensive assortment of technical literature, covering all the points on which you desire information. In re-

gard to the air-brake, its study in late years has practically developed into a science, and examinations of engineers and firemen upon its use are steadily becoming more rigid

It is quite essential for the two professions to post up from books, as the operation of the brake can scarcely be grasped in the thoroughness required through observation under service conditions.

I AM eighteen years old and would like to learn the trade of a machinist. Can you advise?

W. B., North Adams, Mass.

It will be necessary for you to make application on a regular form, which can be secured from the division master mechanic on the railroad where you desire employment. Your age is about right; in addition to good health, you should possess a good common school education, which, judging from your letter, you evidently have acquired

We think that a reference would be essential, but, at all events, we would suggest that you call on Mr. L. C. Todd, the nearest Boston and Maine master mechanic in your territory, at Charlestown, Massachusetts, and talk the matter over with him. Do not write him, as officials prefer to deal in person with all prospective apprentices.

B. B, Fort William, Canada.—There is no better opening for railroad men in Old Mexico and the Southern States than anywhere else, and for firemen it is not so good. This is because in Mexico native labor is largely employed for firemen, and in the South the practise of using colored men is still largely in vogue.

Some of the Southern roads, and also Mexican roads, hire engineers when needed, as it has been found that the Mexicans do not give satisfactory service as runners, and it is not likely that the colored man will be given a chance. In consequence, when business freshens up there is sometimes a scarcity of suitable white firemen for promotion

Just now, however, business is dull in both sections, and we can give you no better advice than to let them severely alone, and this admonition becomes all the more binding if you have a job at present. We can give you no information of value relative to busy seasons in the sections named. There is always a fairly heavy freight movement which does not vary to the extent noticeable in the East and middle West.

W. A. S., York, Pennsylvania.—Write the *Railroad Age-Gazette*, New York or Chicago, which will furnish you with a price-list of books on interlocking and signaling.

J. H K., Terre Haute, Indiana.—See this department in THE RAILROAD MAN'S MAGAZINE for November in regard to the use of the telephone in despatching trains. We have no knowledge of the telegraph being used in connection with the movement of cars over interurban lines. All the companies with which we have taken up the matter employ the telephone exclusively.

G. W. B. S., Memphis, Nebraska.—If the master mechanic you mention has offered you a position it would be preferable to accept it before taking a chance in the Far West. Of course, the chances in Arizona, New Mexico, and California are better than the average, but you would not find much to appeal to you in the desert country, and the cost of living is very high

We give below names and addresses of master mechanics on the Atchison, Topeka and Santa Fe having offices in the territory mentioned: W. A. George, Albuquerque, New Mexico; William Daze, Winslow, Arizona; E. H. Harlow, Richmond, California; I. C. Hicks, San Bernardino, California, and H. S. Wall, Needles, California.

WHAT are the names and addresses of officials hiring motormen on the elevated roads in New York and Boston?

(2) Are trains run by automatic block or telegraph block, and what signals are used?

(3) What chance has a man for position as motorman who can pass an examination on air and all block systems?

(4) If "A," a green man, has application filed one month before "B," and there is a runner needed, if "B" has experience, would he be given preference over "A"?

B. W. B., Reading, Pa.

(1) Address A. L. Merritt, superintendent subway division, Interborough Rapid Transit Company, Ninety-Sixth Street and Broadway, New York, New York, and S. D. Smith, superintendent Manhattan Railway division, South Ferry, New York, New York. In regard to Boston Elevated Railway, address H. A. Pasho, Charlestown, Massachusetts

(2) Automatic block. Night signals: green, proceed; red, stop. Day signals semaphore down, proceed; semaphore across, stop.

(3) Ought to have a good chance, provided men are needed. We note advertisements in the New York papers every day for motormen and conductors, but cannot say whether they include subway and elevated

(4) Pretty hard to say. We have an idea, however, that applications are considered in their turn. There is a period of instruction, anyway, no matter what experience an applicant may claim.

H. M., Brooklyn, New York.—Apply to the master mechanic or road foreman of engines. Business is reviving, but from what we have learned, the roads in this section are abundantly supplied with men.

C. V. McM., Kansas City, Missouri.—(1) Firemen, $2.25 to $2.50; wipers, $1.25 to $1.50

(2) No knowledge of firemen under twenty-one years in that section

(3) Any reasonable weight. It is of little moment if applicant is of good physique and in good health.

(4) Missouri Pacific, E. C. Clifford, traveling engineer, Kansas City, Missouri; Missouri, Kansas and Texas, C. J. Evans, road foreman of engines, Parsons, Kansas; Union Pacific, J. F. Powell, Kansas City, Missouri.

P. L. S., Lordsburg, New Mexico.—Experiments with metal ties have been made from time to time by practically every railroad of importance in this country, but results showing any advantage over wooden ties are still negative. There is but a slim chance of the wooden tie ever being entirely superseded.

TO whom should application be made for the position of fireman on the Chicago, Milwaukee and St. Paul?

(2) How many years of service are required on a railroad to be granted a pension?

(3) How many tons of coal are required on a large Pacific type engine on a one hundred and fifty mile division?

(4) What is the size and weight of the largest locomotive in the United States, and what road owns it?

C. Z., Irraquah, Wash.

(1) To any of its division master mechanics or road foremen of engines.

(2) On roads maintaining the pension feature, about forty years.

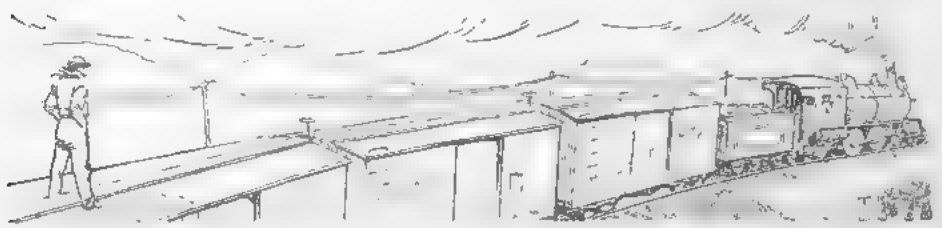
(3) Dependent on the weight of train, speed, and physical characteristics of the division. Approximately eight tons would represent a fair average.

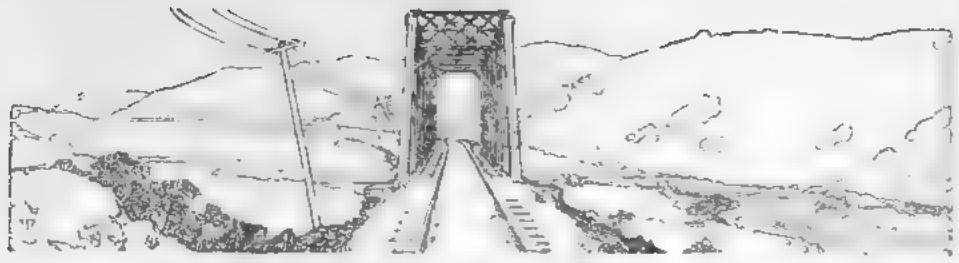
(4) The largest locomotive, not only in the United States, but in the world, is owned and operated by the Erie Railroad, and is in pushing service on Susquehanna Hill, Pennsylvania. The following are the principal figures of interest in connection therewith: Type, Angus articulated compound; cylinders, 25x28x39x28 inches; driving axle journals, 9x13 inches and 10x13 inches; total weight of engine loaded, 410,000 pounds, all of which is on drivers, as engine has no truck or trailer; capacity of tender, water, 8,500 gallons; coal, 16 tons; weight of tender loaded, 167,700 pounds; total weight of engine and tender, 577,700 pounds.

W. C. W., Charlottesville, Virginia.—Apply to the Interstate Commerce Commission, Washington, District of Columbia, and full information will be sent you regarding the inspection of safety appliances and duties of inspectors.

T. J. C., Joliet, Illinois.—The decision in a recent parallel case was that the inspector in "B" yard should repair the car. If the car were returned to "A" yard as you say, this procedure would defeat the aim of the safety-appliance acts, inasmuch as the employees handling it on the return to "A" yard for repairs to defective safety appliances would be deprived of the protection due them under the law.

A. M., Marceline, Missouri.—The issue of the London *Sphere* containing the article on the railroad museum to which you refer was of March 4, 1908.





J. RYAN'S PENANCE.

BY G. W. OGDEN.

How a Section Foreman Took the Law Into His Hands and Got Away With It.

JACK RYAN had erred wofully, not in the mere fact of breaking the regulations, but in the unforgivable matter of being caught in the act.

He had been disregarding certain rules for twenty years, as many section-bosses do, but he broke them once too often.

It was the old Spanish proverb over again: *Tanto va el cántaro al agua hasta que se rompe,* or the more familiar English concerning the persistency of the pitcher in journeying to the well.

He was working twenty men that summer, having been allowed an increase in his gang for changing the steel on his numerous curves. Needing a few ties to strengthen the curve upon which he was working on the tragic morning, he took one man and the hand-car and went after them.

The track was clear of regular trains, and Jack loaded fifteen ties onto the car and started back, feeling secure. Within a hundred yards of his destination a special, loaded with Christian Endeavorers, came up behind, and Jack and his man had only time to leap into the ditch.

Beyond a broken headlight and scarred pilot, no damage was done to the train, but the hand-car was beyond human aid. Jack gathered himself up out of the ditch and turned his face toward the station. He knew the job was up, and for the first time in his life his courage had all leaked out.

Not that he cared so much about the job, for he would have faced the whole bunch of officials, from president down, and argued in justification of his act, but no power under the sun could have driven him back to the gang. He was ashamed to face the men, ashamed that he had been overtaken by a danger at which he had scoffed, ashamed that his reputation for infallibility had been rubbed off the board.

So he trudged away, the humiliation of his downfall ringing in his ears, to go straight to the house and tell Mary, then sit down and wait for the telegraphed order of discharge, which he knew would come.

It didn't turn out quite as badly as Jack expected, all owing to the comfortable fact that the coroner was not needed. They let it go with thirty days in the boneyard and removal to the coast division, which meant taking a man out of the world and setting him guardian over a band of squash-faced Chinamen.

Cañon Diablo caught Jack Ryan, and thither went the toe-scarred furniture, bearing the indents of nine little Ryans; thither went hollow-eyed, patient-faced Mary, and thither went the nine little Ryans, every man jack of them a girl,

save only the last one, a bunch of red protest and discord, bearing his father's name

There was nothing at Cañon Diablo but the section-house and the name. It was one of those lonesome, unsheltered places, familiar to transmontane travelers, with the bleak section-house huddling close to the track, as if a sentient being whose abiding fear was that the sand might pack in, or the snow drift between some night and cut it off from the world's pulse altogether.

White earth and glaring emptiness were around it and over it; great sweeps of free white earth, sage-flecked, drouth-sterile desert, with black-toothed buttes humping round shoulders up out of it away off there against the bottomless sky. It was one of those places where a man never sees to-day the tracks he made yesterday, for the restless night wind sweeps them away, or heaps sand above them like the silt of oblivion above the bones of one long dead.

The Chinamen lived in holes burrowed out of the sand and walled with ties. As for water, it was accepted as reasonable to be believed by all concerned that the longest distance to that desirable element was straight down. So they hauled it sixty miles in a tank car and set it in on a spur beside the section-house, where it simmered and stewed in the desert sun.

There was no telegraph station at Cañon Diablo, and sometimes the water-train was slow about coming. In such a pinch the only thing to do was flag a train and get a tiding-over supply from the tank of the engine, to have the hog-head curse about it and the conductor chafe, for what is the welfare of a gang of jerries or a family of shanty Irish compared to running on time?

"You got to buckle a couple of guns on you to handle a gang like this," said the roadmaster to Jack; "it's the only way a single-handed man can keep them rats lined up."

Jack twisted his neck and glowered at the little umber-faced beings who were making a stagger at a job that was cut out for men—men of bare arms and swelling veins, of broad backs and deep chests, and snorted like a bull caribou coming up the bank.

"I've been thirty years a railroadin'," said he, "from gradin' camp to terminal yaards, an' never yet have I seen th' day when I felt th' call of a gun."

"You'll need it here," said the roadmaster, with a full-meaning roll of the head, "and my tip to you is not to lose any time gittin' one."

"F'r such a dhrove o' squids as thim!"

"They cut a foreman into ribbons on this section not ten months ago," the roadmaster assured him; "they're treacherous as quicksand."

"Never but wanst in me life," said Jack, "did I come across a gang o' railroaders that took the courage out o' me. In Jersey, lookin' f'r a job, I was at the time, walkin' on th' toorf at th' side o' th' poike, carryin' me shoes, like I'd been brought up t' do in th' owld country. Roundin' a curve I come upon th' divil's own racket of a n'ise, clankin' an' rattlin' an' gabbin', like I'd never heard before in all me days. I stopped a minute list'nin', and then I toorned me back on 'em an' I roond away, never stoppin' till th' sound of 'em was gone. I found out from th' owld gray where I stopped that night that it was nothin' but a gang o' Welsh fellys a-buildin' a bit of a railroad."

Jack's contempt for his crew increased as the long, white days marshaled past, bearing on him with the keen edge of their vast melancholy; never a Christian face to see, never a Christian word to hear, making him as grisly-humored as the desert itself. He had contempt for their stature, language, looks, and mode of life, and the bitterness of it set him against them with all the fervor of his big, simple heart.

He fell into a way of driving them, a way quite foreign to the old chap, used in all his hard-hammering years to the arts of cajolery, flattery, and praise. He badgered them in his moroseness, urged them continually, cursed them unremittingly. Not a Chinaman of them that didn't understand Christian curses, too, whatever they might lack in practical knowledge of the art of raising joints on a Christian railroad.

If they resented his treatment, Jack could not see far enough behind their fixed, aguish masks to read the extent of their displeasure, or to set his limit of abuse, a circumstance which only disgusted him farther.

"Give me nagurs, much as I hate th' monkeys," said he, "for nagurs will talk back at a man, or, at least juggle their eyes till they come up at ye all white, like a bull's when he has his head down ready t' chaarge. But these marigoolds takes it like th' sand soaks up wather—y' look th' next minute an' can't see where 'twas spilled.

"Give me nagurs, 'r even dagos, f'r thim fellys will fall on a man, all boonched like a handful of worrums, sometimes, an' give 'im a rappin' wit' knucks, 'r tickle th' hide of 'im wit' dirks, but these doughnuts wouldn't raise a hand against a crow. Cut 'im t' ribbons, says he. Well, I'd give th' half of me paycheck t' see th' mug of th' man that ever worruked a gang o' Chinamin up t' th' fightin' p'int."

The roadmaster made periodical visits, traveling, after the ancient custom of roadmasters, from section to section on the hand-cars of the bosses. Such visits Jack improved by unloading his overcharged mind of sundry picturesque and profane opinions on the Mongolian race.

"If e'er a wan o' thim could understand an arder," he complained, "it wouldn't be so wreakin' on a man. It's the divil's own time I have to get thim to do a bit of a job. 'J'int ahead,' is a section of th' English grammar thim fellys has got tangled up wit' 'put on th' kyar.'

"Yisterday I was linin' up a bit o' thrack, gittin' 'em at it right only be takin' a bar meself an' givin' 'em an ocularable de-monsther-ation. 'J'int ahead!' I yells, an' every dook faced, papermatchie divil drops his bar an' all gallops off f'r th' kyar, grabbin' a howld of 'er an' a draggin' 'er on th' thrack.

"I had a riot gittin' 'er off ag'in, an' th' thing has been goin' on in a continuous perfarmance ever since. Sure it's as haard to stop thim wanst y' get thim a goin', as it is to start thim. They'll pull an' h'ave an' twist away at a piece o' thrack till they t'row it clane off th' right o' way. If it wasn't f'r th' owld woman an' chilther, Mr. Littleberry, y' could take y'r job an' go t' th' exthrames of th' divil wit' it!"

Jack at length yielded to the combined pressure of the roadmaster and Mary, and stuck an old snub-nosed bulldog .44—left behind years before by one of the men—into his hip-pocket each morning before going out to face the Chinamen. He never thought of it between whiles, save when the bulk of it chafed him, and then he would toss it into the bolt-box on the car and leave it to blink up in a sinister leer at the sun

He felt from the very beginning that the time was sure to come when he should clout one of those passive, expressionless countenances with his big, bony fist, unworthy as they were of the weapon which had sent many a good man to the grass. The bland, immobile flatness of them, changeless as the bottom of a brass pot, irritated him like a gravel in his shoe, and his unspeakable contempt did not leave room for a question of probability of a stand on their side of the fence. Mary counseled nightly against violence, begging him to bear it until a change came in their fortunes, for the children's sakes, but his passion broke the leash one day, in spite of his struggle to keep it in hand.

It came after a stormy session, with Jack worrying to the very brink of apoplexy to make them understand, when one of them in inflection of protest and gesture of defiance, raised a wrench as if to strike him. Jack leaped upon the man and stretched him clear of the ties with a blow that made his neck crack.

The effect seemed to be chilling on the gang. They gabbled a good deal, but worked on, leaving the chastised one prone in the sun until his strength revived and he again surlily took up his tool. Jack kept his eye on them pretty closely for signs of mutiny all the rest of the forenoon, and when he haled them up to begin the afternoon shift they seemed tame enough to eat off a shovel.

Jack, not a little cooled and relieved by the morning's experience, took a turn down the track, put his chunky little revolver in its accustomed place on the car, and even hummed a piece of a tune which came floating to him on the maze of memory over the glimmering sands.

Up and down, up and down, a rod or two beyond the limit of the work, his hands clasped behind his back, falling deeper and deeper into his pleasant train of reflections as he paced, Jack forgot the desert sun, the Chinese, and the hardness

of his exile. The Chinamen, marking every movement, read it in his battered face when it turned toward them each time he doubled back.

Jack had been standing some minutes, his eyes on the blue distance, near the brink of the torn-up road-bed where the gang was working, before he missed the noise of the bars on the ballast, and turned, to come face to face with the Chinamen, bunched like a pack of slinking coyotes at his heels. They drew back like dogs surprised in a sneaking attack, a knife glinting here and there, their malevolent eyes shooting the volume of hate and threat which their tongues had no Christian words to express.

"That's th' way y' do it, ye slime of th' worruld!" shouted Jack, springing among them at one mighty bound and scattering them as sheep scatter when the gray wolf leaps the corral. His foot flipped a shovel as he struck out with his fists, and the clink of its blade against the rail sounded like the voice of a friend.

The Chinamen were massing a rail's length away, showing no disposition to be dispersed by an unarmed man without leaving their mark for him to carry away, and Jack saw them crouch and begin to steal toward him again, silent as shadows, as he gripped the shovel handle and whirled the stout tool above his head. Jack made noise enough for them all as he charged, his shovel cutting the air with the swish of a sword, but falling bloodless where the Chinamen had stood only a second before.

Their feet were as nimble as was their courage, and they fled in a broken squad over the dump, through the fence, and out upon the sage-studded plain. As the last one of them scrambled through the wire Jack thought of the revolver. In the fervent hope that he might catch at least one of them in that manner, he began firing, but they drew away and disappeared in the sage, and Jack sat on the car waiting to see if they were coming back.

After a while he saw them gathering on the track, half a mile or so away, where they stood gesticulating for a spell as if undecided what to do, finally setting off in the direction of Albuquerque and the nearest interpreter, ninety miles away.

"Go it, y' jackals," said Jack, "an' I'll be makin' a line f'r th' house t' see that y' don't cut acrass th' sandbar an' worruk damage t' th' owld woman an' kids. Y'r grasy boxes an' rice-bags y' can have, an' welcome, but howld off y'r hands from anny livin' craythur that's got a claim on me."

He pulled the car on, loaded it with the scattered tools, and, with a shovel against its platform, pushed it home. Then he took down his writing material and scratched off this laconic message to the roadmaster:

> My gang has mutnyd and deserted send me another gang
>
> JACK RYAN, 109.

He tramped to the next section west and gave it to the boss to put on the wire for him. Then he went home to walk track and wait for the new gang. Two days later the roadmaster arrived, severely inquiring for particulars.

He got them, as well as an uncensored opinion of himself and an invitation to step out, and departed, saying he'd send another gang from Albuquerque as soon as he could get men enough together.

"Where are the men you drove off?" he asked.

"Th' boss east o' me says they're bein' harbored by his gang," Jack replied, "but don't y' go shippin' thim fellys back t' me, Mr. Littleberry; we ain't on what you might call fri'ndly terrums."

Next day the local passenger-train stopped at Jack's tool-house and unloaded twelve Chinamen. It was pretty quick work on the part of the roadmaster, Jack thought, and the suspicious shortage of baggage and supplies convinced him that it was the same old crowd.

"No tellin'," ruminated he; "they're as like as spikes, an' as f'r names, if there's e'er a man livin' can tell a Chinaman by his name, he won't be found a herdin' thim on a forsaken stretch of thrack run'in' t'rough a country j'inin' th' back dure o' hades."

> "Use diplomacy with your men, and don't lose your head and go after them with a shovel every time any little thing goes wrong," wrote the roadmaster in regard to the new gang. "We've got to work Chinese out here in the desert; they're the only kind that will stick to it, and the old man says if you can't do it, we've got to find somebody that can."

"It's a coward that runs away an' writes a letter," said Jack, scattering the bits of it to the desert wind. "Y' didn't have th' courage, Mr. Littleberry, t' tell me as much t' me face. Let me get foor pay days out o' th' job an' y' can have it, an' I'll go back t' th' worruld an' worruk as a hand till I can make another rise."

That it was indeed the same old crowd Jack had no further doubt that evening, when each Chinaman of them singled out a certain box and bag from the belongings in the dugouts—the same old crowd in personnel, but quite a different one in spirit. They stepped about docilely, even with a show of eagerness to please.

"I guess y'll stand wit'out hitchin'," said Jack, looking them over with a humorous wrinkling at the corners of his eyes; "I t'ink yees'll be contint not to mix wit' th' Irish for some days t' come."

Next morning saw the gang at the farther end of the section, picking up some joints that Littleberry said made him seasick every time he rode over that piece of track; Jack, better humored than he had been in many a day, even attempting some light conversation with the men, to the extent of asking them concerning their wives and children. He didn't get on very well, and finally gave it up with a sigh.

"It's no use tryin' to convarse wit' thim fellys; they ain't human, poor thribe o' Belial," said he, turning away. "What's this, a horse comin' swelthern' t'rough th' sand wit' a man on top of 'im?"

It was, and it stopped, stiff-legged, at the fence, while the rider beckoned to Jack as he slid to the ground. The rider was a slim young man, with a bit of a hat that turned up in the back and down in front, like a girl's, and carried a broad green band with red stripes around its doubled-in crown. He wore trousers which were wide at the hips and narrow at the bottoms, like a Dutchman's, and the wrinkles of a long ride drew them up from a pair of neat oxfords and flowered hose.

He hung to the fence as if beaten out, and Jack approached curiously. While he was still a dozen yards away the young man grasped the top wire with both hands, and called:

"Say, old man, have you got any whisky?"

Jack went on, saying nothing, but noting that the stranger's mouth was drawn with weariness.

"Whisky, whisky!" gasped the youth again, as if speaking aloud a desire that had been driving him a long, hard journey. "I've got to have whisky, man, and if you've got any I want it!"

"Young felly," said Jack, eying him with a questioning keenness, "what do I luk like, a bonded warehouse? What are y' so keen on th' scent of whisky for, a bit of a schoolboy th' like o' you?"

"I've come from away over there," pleaded the young man, pointing to the mountains, "from the foot of the hills, and I've been riding since dawn. It's not for me, man, can't you understand; it's for my brother. He's been bit by a rattlesnake!"

"Well?" said Jack.

"We lost our liquor by getting the jug broken—"

"Y' sh'u'd carry it in a kag out here, lad; they all do," Jack advised.

"And we hadn't a thing. The snake got into Don's blanket some way, and bit him when he was getting up. I was the best rider in camp, so I set out for the railroad. The professor said most anybody I'd find along the railroad would have whisky."

"He knows as much as th' gineral run of thim, whoever he is," said Jack.

They were a college crowd, five of them and the professor, the young man said, and they had come out there to the desert in vacation to dig for bones and things.

"Yes, yes," said Jack thoughtfully, "I'm t'inkin' it would be full of bones, an' y'll be lucky if y' don't leave his mixin' wit' thim of th' mastadonians an' philimilogians an' th' rest of thim monsthers. Didn't th' professor have sinse enough t' cut th' boite an' tie a band above it t' kape th' pizen from risin?"

They had done all that, but their guide said the victim must have whisky inside of twelve hours or he would die.

"He was right," said Jack; "he'll last till th' pizen sthrikes his haart, poor b'y, then he'll twist up loike a worrum an' die. Is he younger nor you?"

No, he was older, and the young man's

voice sank to a whisper when he answered, his chin trembled and tears ran down his face. It was such a cruel thing for him to have to die out there in the desert. Wasn't there some way of getting whisky, wasn't—and there the young man changed, the whimper died out of his voice, a hard grayness spread over his face, and he turned again to his horse

"There's whisky somewhere in this country," said he, "and if whisky'll save him, I'm going to ride till I find it and take it to him. Which way is the nearest town?"

"Y're a plucky lad," said Jack kindly, "but y' could never go an' come in time t' do him any good. I had a lad of a brother onct meself, an' him I stood by an' saw die in th' horrors of th' cholera, wit' no hand raised t' help 'im save me own, an' Hiven knows that could do but little.

"That was in N' Orleans, time before y' were born, but th' sickness of that day rises in me throat sometimes, owld as I am, an' makes th' worruld black. Y've done what y' can; y' can do no more. Let me consider a minute what is th' next move."

Jack drew away a little and turned the matter over. Here was a Christian dying for the need of two quarts of whisky, and not a place this side of Albuquerque where a man could lay his hand upon a drop! A Christian swelling up with the serpent poison, writhing on the baked sands, turning black, suffering death every minute, and all for the lack of two stiff quarts of whisky, and not a drop a man could lay his tongue to this side of— Hold—wasn't there a cowboy saloon back at the ranch supply-store, thirty miles to the westward?

Of course: "Wines and Liquors," the sign said, bless the bold hand of the man that painted it in letters so tall and broad; "Wines and Liquors"—you could read it from the fastest train.

Quick as a flash along the drumming wires at the fringe of the right of way, Jack lined it up. "Wait here," said he, turning to the pallid-lipped youth; "I'll be back wit' whisky in an hour an' forty minutes, on th' tip o' th' dot. Give y'r horse a dhrink o' water out of th' Chinamin's kag—it won't hoort 'im, I b'lave; they're all bastes alike—an' lie down in whativer bit o' shade y' can find an' wait f'r me.

"Come on, y' divils!" he yelled to the Chinamen, beckoning them with short, jerky signals of the forearm, like a switchman giving the kick-in sign to the engine. "Put on th' kyar!"

Leaving no room for misinterpretation of the order, he grabbed the handles and began drawing it toward the track, and when they had it on the rails he flung off the extra shovels and bars, stripping her down to the frame. Six of the lustiest men he chose, signed the others to return to work, kicked her off toward the west and stopped her after they had gone a hundred yards, long enough to plant a red flag in the middle of the track. Then he braced himself at the brake and pulled his gun.

"T'row a ham into 'er now!" said he. "Burn th' rails, y' forsaken outcasts! Y've got wan hour t' make thirty miles, an' if y' don't make it, I'll blow th' eyes o' yees out of th' back o' y'r nicks!"

There was nothing due from the east for a matter of three hours. If there had been anything within a reasonable time, Jack would have waited for and flagged it, instead of undertaking the journey by hand-car. The first thing out of the west was the Orange State Limited, which was due at the little telegraph-station for which he was bound in fifty minutes from the time he set out, or ten minutes before he could possibly arrive.

It was Jack's aim to make it there, get the whisky, and return on her, leaving the men to follow with the car. It was a bold scheme he had decided upon, and most likely meant discharge, but the weight of a human life was more important than that or the company's most expensive train.

Eight miles along the route he was traveling was a water-tank, cattle-loading, passing-point telegraph-station. Jack had set down the first act in his desperate performance to open there. Consequently, he drove the Chinese to their task unsparingly.

The hand-car was geared to make twenty miles an hour, and Jack knew it, and the question of getting thirty out of it looked as unlikely as the stretching of a thirty-foot rail to cover a space of thirty-five. Yet, when he leaped onto the

platform at the little station and wrenched out his watch as he ran for the office, he noted that they had covered the eight miles in fourteen minutes.

"I'm Ryan, foreman of section 109," said he to the boyish operator who looked up at him imperiously from the pages of a dime novel, "and I want y' to drop that on th' dump and get busy with thim wires. Everything east of here's blowed up an' washed out by a cloudburst. It was all I could do t' get the han'-kyar over an' raypoort it.

"Howld everything, but' ways. Y'll catch th' flier at Williams? All right. Tell th' trainmaster t' howld 'er there till I arrive on me han'-kyar. I'll get on th' ingin', and maybe I'll be able t' pilot 'er t'rough."

Then he bolted, and before the bobbing figures of his Chinamen were a mile nearer Williams a great commotion was kindling in the office of the train despatcher at the division end.

"Acted like a crazy man," the little operator said of Jack, "and went off down the line holding a big gun over his men."

There was no way of getting hold of a section-boss near the scene of the reported disaster, and no way of verifying Ryan's story. They fretted and fumed over holding the flier, but the chance was too long to risk, although Ryan's procedure was altogether unheard-of. The only thing to do was to class it as a case of doubt and take the safe side, so the operator at Williams was told to turn the board on the Orange State Limited and hold her until Jack Ryan came.

Passengers and crew were grouped around the flier's engine, waiting. The word had gone through the train that something unusual had happened down the line, and that a section-boss was coming on his hand-car from the scene of the disaster. Meantime Jack Ryan was drawing near, making such time as has never been equaled by a hand-car on the coast division, alternately cursing and encouraging the tough coolies who were supplying his motive power.

The entire route lay through the flat desert, and the car was sighted while it was yet several miles away. Rapidly it came on, Jack himself throwing the strength of his six feet four into the lever, making the car leap at each heave.

Within fifty feet of the engine Jack stopped her, bodily lifted a Chinaman off, stood him in front of the car in the middle of the track, and placed a red flag in his hand, gesticulating toward the engine. The pantomime consumed a precious minute and ended with a dramatic rehearsal by the Chinaman. Jack patted him approvingly on the back when he saw that he had made him understand.

Then, to the amazement of everybody, the grizzled, dust-powdered old giant bolted for the little saloon across the road. A murmur of shocked surprise from the passengers, and a hoot of disgust from the crew, chased him like a breaker as he plunged in at the door.

"What d' y' think of that!" snorted the engineer. "Holdin' up the Orange State Limited while the section-boss takes a drink!"

Jack presently emerged, carrying a wicker-bound bottle, and another horrified exclamation burst from the women, while some of the men, admiring the intrepidity and resourcefulness of the section-boss, cheered him laughingly. Jack heeded neither cheers nor groans, but ran back to his car, ordered it off and took in his flag, then panted up to the engine.

"Get 'em aboord now," he ordered, "an' be lively!"

"You're a peach, ain't you?" sneered the engineer. "What's the matter down the road? Looks more to me like a drouth than a washout."

"Up wit' y', y' hoghead," snarled Jack, charging at him with updrawn fist. "Give 'im th' boord there, you!" he called to the operator. "I'm Ryan, 109, an' th' thrack's clear; give 'im th' boord!"

He mounted the engine in the wake of the surly engineer. "Let 'er out f'r thirty miles," said Jack, "till y' see a red flag stickin' in th' thrack, then stop. An' whin y're goin' let 'er go as y' never wint before, y' hoghead, y'!"

But it took a wait of some minutes more, until the operator could get the necessary order, and then they started; Jack, perched on the fireman's seat, clinging to the hard-won bottle as a man clings to his last hope. The hulk of the

boiler hid the engineer from sight, and Jack told the fireman the story as the roaring gale beat into his ears and the rolling engine sped forward, biting off the delinquent minutes with every five miles.

"We're near there!" shouted Jack. "How're y' roonin'?"

The fireman studied his watch a moment, then turned the dial toward Jack.

"He's made it up," he answered proudly, and Jack nodded, well pleased.

A little way ahead he could see his stop signal fluttering between the rails, his Chinamen pegging away at their work, and the stranger's horse outside the fence where he had left it. The engineer was giving her the air, bringing her down gently. Jack unstrapped his belt and buckled it through the handle of the wicker bottle, clambered down from the seat, and hit the ground as the engine came to a stand, her nose close against his flag.

The young man was there, his eager, anxious face turned toward the coaches, as if he expected some one to alight. He did not see Jack until he flung the belt around his shoulders.

"Don't stop f'r a worrud," said Jack; "be off wit' y' now, but let me hear how th' lad comes on!"

A string of grateful promises and warm benedictions flowed back over the young man's shoulder as he ran for his horse, and Jack plucked up the red flag, signaling the engineer ahead.

"Go on!" he yelled; "y're none th' worse f'r th' good worruk y've done this day agin' y'r wish. Go ahead!"

The engineer leaned out as he passed, shook his fist at Ryan, and growled a threat. "You'll hear from this," he said

"Y-a-a, if I had y' on th' ground!" Jack hurled back at him, and the limited slipped away like a snake, its passengers looking after the rider with the wicker bottle, who was bending low in his saddle, with never a backward glance since he headed his horse toward the distant hills.

Three days passed without incident. Jack, still labored over the undulating stretch of track which caused such unpleasant qualms beneath the vest of Mr. Littleberry, roadmaster. The heavens had not fallen, neither had the earth risen to smite him. Littleberry was silent, and nobody had come to take his place, all of which was marvelous matter to the foreman of section 109. No word had come to him from the boy, either, and he sighed when he reflected upon the shortness of human gratitude.

The day had turned when a cavalcade appeared on the rise of a sand dune off toward the hills. "It must be their outfit," said Jack. "Heaven send that they're not bringin' out th' poor b'y's corpse."

It was a four-horse wagon, such as is common to that country, and three mounted men followed it. It was still a mile distant when one horseman broke from the bunch and galloped down toward Jack Ryan, waving his hat while yet a long way off, in exuberant, friendly salute. Jack replied in kind, feeling that all was well.

The young man had come through it bravely, the whisky had saved him, so the brother said, and was in the wagon, almost himself again.

"I'd have been over to tell you yesterday, but I had to go to the telegraph-station and send word to father," he apologized. "Father's in Chicago—that's our home—and he's sending a special out from Albuquerque to pick us up this afternoon. It should get along here about two o'clock."

"Sendin' a special," reflected Jack. "Well, th' owld lad must have a long sock."

It was comforting, the thought of that special, for Jack felt that a man who could afford special trains for a pack of schoolboys, might easily command influence enough to save a section-boss his job, even in so grave a case as his.

"If it's at two o'clock y'r train's comin', y'd better have thim poke up th' bastes on that wagon," he advised. "It's only a few minutes short of two now, and list! there she is whistlin' around th' curve."

"Oh, that's all right," the youth assured; "they haven't got anything to do but hold the train till we're good and ready to go."

And that's what they did, while the young men and the professor packed around Jack, who blushed and stammered

and said he must be looking after his gang—loading him with praise for his disinterested action

"What makes it worth while," said the tall young fellow who had served the obscure desert serpent for a mark, "is the fact that you risked everything for somebody you'd never heard of. And you held up the Orange State Limited fifteen minutes? Well, Mr. Ryan, I don't know just what they do to a section-boss in such a case, but—you haven't heard anything, have you, from the powers?"

"I'm expectin' it anny minute; but don't let that worry y'," said Jack.

"No, you'll not hear anything of a disagreeable nature, either, because my father's president of this road."

"Oh!" said Jack, a great light breaking, "I see."

A man who had been standing with the train crew looking on now approached. He was superintendent of the coast division, he said, and carried the compliments of the president to Mr. Ryan, with the assurance that, if Mr. Ryan wanted anything within the power of the president to grant, he had but to name his desire.

Jack's eye brightened. "I'm not askin' a reward f'r doin' me duty to a human bein'," he answered, "but don't y' t'ink, Mr. Clellan, that I've paid by me sthrivin' an' wreakin' an' sweatin' on this desert sand-bar at th' head of a gang o' Chinese, f'r wan owld han'-kyar, smashed by a special on th' middle division two months ago?"

"You'd like your old job back?" asked the superintendent.

"I would," assented Jack warmly. "Sind me back t' th' middle division; back in th' land where me fri'nds are, where they speak th' human language, where th' wather comes up out of th' earth, where th' threes grows grane an' th' grass is undher th' feet—away from this grin o' th' devil that's by y' night an' day! I ask nothin' better; y' can give me nothin' better nor that."

"The local will set a car in on the water stub for your household goods tomorrow," said the superintendent, "and I'll send you transportation by Littleberry."

"I'm obliged t' y' for it," answered Jack

"I've kept your belt, Mr. Ryan," said Don, the president's son, pulling it from his pocket, "and if you'll allow me to do it, I want to take it home to mother."

Jack blushed like the glow from the furnace when the fireman opens the door at night, and stretched out his hand deprecatingly. "It ain't fit," said he; "it have th' sweat of me body soaked into it for twinty years; sure, lad, it ain't at all fit."

"I'll just keep it, anyhow," said he, and, being weak from his late experience, a tear splashed down from his eye and struck Jack Ryan's hand as he clasped it in farewell

The special carried them away, waving from the back platform until the curve shut them out, and the Chinamen, understanding vaguely that their boss must be a very great man, indeed, bent to their work with a diligence and thoroughness surprising to behold. Jack marked it, moving among them

"Ah," said he, "it's murtherin' hot! Take it aisy now, lads; take it aisy!"

MOTORMEN ARE ENGINEERS.

A MOVE, which will probably be an epoch-marking one in its history, was made at the last convention of the Brotherhood of Locomotive Engineers. It was decided that motormen on interurban electric lines should be admitted to membership.

The report of the committee, adopted unanimously by the convention, embraces almost every man running a train under power except motormen on city surface lines. The question was brought up by the problem of including motormen who were running cars on the same tracks over which they had previously pulled steam-engines, and while the matter was under discussion the status of interurban trolley, elevated railroad, and subway motormen was debated, and their eligibility decided upon. The controller handle approaches the dignity of the throttle

Full Speed Ahead.

Some of the Orders that Are Rushing Down the Line While the Semaphores Give the White Light of Prosperity All Along the Way.

IT is stated that the Carolina, Clinchfield and Ohio, formerly the South and Western, has placed an order with the Pressed Steel Car Company for 2,200 steel gondola cars.

THE Railway Steel Spring Company, Detroit, Michigan, has purchased from the Inland Steel Company about 25,000 tons of steel billets to be used principally in the manufacture of car springs.

THE Richmond branch of the American Locomotive Company was reopened after some months of idleness by the receipt of an order from the Virginia Railway Company for 19 Mallet consolidated compound locomotives.

A CONTRACT has been awarded by the Western Pacific for the erection of passenger stations at Livermore and Hayward, California. The buildings are to be of the mission type, 42x81 feet, and together will cost about $20,000.

THE American Car and Foundry Company has recently purchased real estate in St. Louis for the site of the new foundry which it is about to add to its plant there. Work will begin immediately. The proposed cost is in the neighborhood of $200,000.

THE Grand Trunk has placed an order with the Canadian Locomotive Company, Kingston, Ontario, for 25 locomotives. The weight of these engines in working condition, with tenders, will be over 150 tons, and the diameter of the driving-wheels, 63 inches.

AN order for twenty five freight-locomotives and fifteen switching-engines has been placed recently by the Chicago and Northwestern with the American Locomotive Company. This is in addition to the fifteen Atlantic type engines ordered a short time before.

ON the Chester section of its road, the Boston and Albany is instituting the new system of automatic signaling, known as the "Hall system" and the "three-position upper quadrant type." This is the latest approved system of the Railway Signal Association.

TO take the place of the repair shops of the Wheeling and Lake Erie, at Norwalk, Ohio, which were burned down some months ago, the company is erecting temporary repair shops, but contemplates the erection of permanent shops at Brewster, at a cost of $2,000,000.

TWELVE thousand tons of steel plates and shapes have been ordered from the Illinois Steel Company by the Standard Steel Car Company. These plates and shapes are to be used in the construction of the thousand extra steel cars ordered by the Chicago and Alton.

AT a cost of $150,000, the New York, New Haven and Hartford will probably erect a viaduct, 350 feet long, over its tracks at Bridge Street, New Haven. The company is also in the market for considerable bridge material for work involved in several small structures.

THREE new railroad branches were opened in Canada in the early part of last November. The Canadian Northern extended its service on the Brandon and Regina line 225 miles long, paralleling the Canadian Pacific almost the entire distance. The Canadian Pacific line from Yorkton, Saskatchewan, to Leslie, 66 miles, was opened, and the same company opened its line running

north from Moose Jaw, Saskatchewan, to Conan, or Out Look, Saskatchewan.

THE Sheffield Car and Equipment Company is adding to its plant at Kansas City, Missouri. A new car repairing and rebuilding department is being built. The alterations comprise two 70x90-foot buildings, making the company's capacity for rebuilding freight-cars 300 a day.

AN order was placed recently by the Pittsburgh Railways Company for 6,000 forged steel wheels. Heretofore the street-cars have been provided with chilled iron wheels. The order is said to be the largest order for wheels ever placed in Pittsburgh, and one of the largest on record.

IT is reported that the Chicago, Rock Island and Pacific will construct a terminal at El Dorado, Arkansas, at a cost of about $40,000. The plans include an eleven-stall roundhouse, a 64-foot steel turntable, a 130-foot circular pit, a 115,000-gallon steel standpipe, and 40-foot 100-ton track scales.

THE Illinois Central has placed orders with the Cambria Steel Company, of Johnstown, Pennsylvania, for 681 100,000 pounds capacity drop-bottom steel gondola cars. The order called for delivery of the cars to begin on November 1 and to continue in lots of not less than forty per day.

J. G. BRILL & CO. have received an order from the Washington Water Power Company, Spokane, Washington, for 27 cars. Twenty of these cars will be 23 tons in weight for use on the city lines, and 7 will be 32 tons, for use on the interurban lines. Five of the latter will be fitted with trailers.

AN order was placed some weeks ago by the Bettendorf Axle Company, of Davenport, Iowa, with the Bethlehem Steel Company for 10,000 tons of twenty-inch beams. This is in connection with the order for a thousand steel-car underframes placed with the Bettendorf Company by the Chicago, Milwaukee and St. Paul.

A RUMOR of more than ordinary interest is circulating to the effect that the New York and New Jersey Interstate Bridge Commission, in its annual report to be submitted to the New York Legislature, will advocate the construction of a bridge across the Hudson River at One Hundred and Eighty-First Street, or Fort Washington Park, New York City.

LAST October the Pennsylvania laid plans before the Baltimore City Commission for Improvement of Railroad Terminals for a new union station to cost between $700,000 and $1,000,000. It will be the third or fourth largest passenger station on the Pennsylvania system. The floor space will be thirty thousand feet, with a general waiting-room space of 8,160 square feet.

A CONTRACT has been awarded by the Pittsburgh, Cincinnati, Chicago and St. Louis, for the construction of a new passenger station at Canonsburg, Pennsylvania. The value of the contract is about $50,000, and it was obtained by Vestor, Stewart & Co., of Washington, Pennsylvania. The old building is to be removed to another site and will be used as a freight station.

SEVERAL large orders from foreign railroads are pending. These are indicated by inquiries from the government railroads of Brazil, asking for bids on 25,000 tons of sixty-five-pound steel rails; from the New South Wales state railways, asking for bids on 16,000 tons of eighty-pound steel rails; and from the state railways of Rumania, asking for bids on twenty-one locomotives.

AN order recently placed by the Nashville, Chattanooga and St. Louis calls for three Baldwin balanced compound passenger-engines, guaranteed to haul twelve Pullman cars at an average speed of thirty miles an hour, weighing 147 tons when in working order, and having a tender capacity of twelve tons of coal and 5,500 gallons of water. The cost is to be between $60,000 and $75,000 for the three.

IN addition to the 200 all steel cars recently ordered by the Pennsylvania, the company has just placed orders for 77 all steel passenger and combination cars. These cars will be the last word in steel-car construction. Each car will contain 1,300 pounds of open-hearth steel to every passenger carried.

The ventilation provisions are unique. Air is forced into special compartments in the top of the car by the motion of the train, and is then carried through pipes, over steam-heated coils in winter, into the car.

"BEATING IT" Across the Continent.

BY RUTHERFORD CORBIN.

HOW would you like to travel by rail from San Francisco to the Atlantic coast without spending money for railroad fare? Last month we saw how the trick was worked across the Nevada and Utah deserts, between the Pacific coast and Salt Lake City. Now we are to follow our wanderer the rest of the way to his Eastern destination, much the harder part of the journey in many ways.

When you have read it the chances are that you will admire the pertinacity and self reliance of the man who made the trip, and determine that as for you the conveyances invented by Mr. Pullman will do very nicely.

No. 2.—FROM THE ROCKIES TO THE ATLANTIC.

Glimpses of the Kindnesses and the Kicks, the Dangers and Discomforts, Which Await Him Who Travels by Rail, but Pays no Fare.

FROM Salt Lake City, by this time a professional hobo of experience and standing, I made an easier trip to Denver. In the first place, I had learned to ride the blind-baggage trains, except where freights were plenty and fast. I took the car to Smeltertown and walked over to Bingham Junction, sixteen miles south of Salt Lake.

From Bingham Junction I made the run into Denver in four days. Most of that time I had as my traveling companion a sign-painter, who had become stranded in Salt Lake City after a frolic. His destination was his home at Cañon City in southern Colorado.

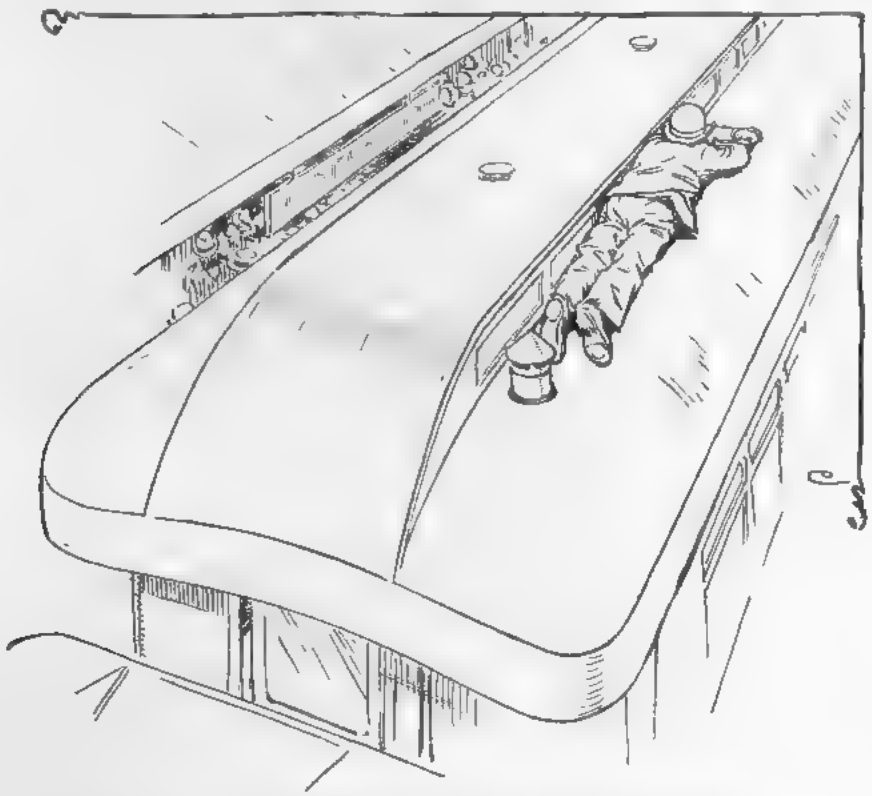
We were delayed for several more hours than we thought necessary or approved of at Grand Junction, and determined to scout out beyond the two extremely "hostile" railroad "bulls" employed to annoy indigent travelers at that place, and grab a blind. We had an interesting skirmish doing it, but finally "made her out" on George Gould's best limited train.

We "held her down" through the stations by climbing back from the tender top to the top of the mail-coach, where we would lie flat on the side opposite the station until she pulled out. This process is known in tramp parlance as "decking her." At Glenwood Springs, however, they are accustomed to look the trains over to guard against this very process. Consequently, we left the train and hid on the side of the steep bank running down to the river, and when the train was under way again we made a wild dash to catch the tender-step.

Began in the January Railroad Man's Magazine. Single copies, 10 cents.

I was successful, but just as I swung myself in between the tender and the mail-coach, the sign painter, directly behind me, stumbled, crashed into the corner of the tender, and nearly dropped under the wheels. Fortunately, I was able to swing him over the bumpers.

He had fainted, and I do not know what might have happened had not the fireman come to my rescue. Together we got him up the ladder to the top of the tender. He was pretty badly busted up; as we afterward learned, a collar-bone and a rib were broken.



THIS PROCESS IS KNOWN IN TRAMP PARLANCE AS "DECKING HER.

I expected the fireman to read me a lecture beginning with sulfur and ending with brimstone. "Poor devil!" he said.

One Touch of Nature.

He helped me get the poor fellow off and to the railroad doctor at Minturn. All the railroad men, lately our sworn enemies, were tender and human to us in our distress. The doctor, a young Easterner, asked me what I was going to do with my charge, and I told him that I should leave him in Minturn, go on to Denver, get some money and send it back to him.

"That won't do," he said. "You can get transportation for him to Cañon City all right. The master mechanic is down here fishing. Tell him the story. He will come across."

"What!" I demurred. "For a pair of boes caught in the act?"

"He isn't a bo," said the doctor, "he's a sick man If that master mechanic would turn you down, he could last in Colorado about six days."

We rode into Cañon City on a passenger, where I turned my friend over to his wife.

The combat between the train crew and the tramp, while at times fiercely waged, seldom has the element of brutality except when the tramp brings it on himself. If he is aggressive, acts as if

he owns the road, he is apt to get all that is coming to him, and, perhaps, to draw on some more tactful one's share.

Generally, and especially in the West, he is expected to keep out of sight in order that the train crew may not be spotted and laid off, and if he has it, he is expected to come across with a piece of change. A man who can show any kind of a union card, and usually any one who can convince the "shack" that he has a legitimate reason for wanting to get to a particular place and is shy the price, is exempt from requests for a contribution.

The tales current on the road of great sums of money acquired by brakemen from hoboes, are, I believe, greatly exaggerated. I saw only one instance where a brakeman secured any large sum, and that was in the Colorado mining country, where he assessed thirty two of us in an empty box car a dollar apiece, and got it.

TOGETHER WE GOT HIM UP THE LADDER TO THE TOP OF THE TENDER

He was insistent on his exact tariff of one dollar, and two or three of the party who were shy that amount had it made up for them by their comrades. The rest of the crowd had been paid off recently at a mine in the Telluride district, and were willing and able to meet the tax on their pocketbooks.

While I cannot believe that such large receipts were the regular order of each day's run on that division, yet the transaction was carried on in as businesslike a manner as if it were between the conductor of a Pullman and his passengers.

One of the party was a Swede miner who was going back to his home in Oklahoma after three years in the Nevada goldfields. He was a simple old boy, and was delighted to have an auditor for his personal affairs. He showed me the salespapers for a claim he had in Rawhide, and a bankbook on an Oklahoma City Bank in which he had deposited the three thousand five hundred dollars involved in the transaction.

I asked him why he

didn't draw on his bank account and go home in style.

"Oh, I not ban used that way. I get there all right."

The only serious encounter, or even personal trouble I had with a brakeman, was on the Burlington lines in Nebraska, which route I followed east out of Denver.

At one of the division points I had dropped off for a couple of days in order to rest and "feed up." The day before I pulled out I had a mild argument along general lines with an individual on the station platform, who turned out the next day to be a brakeman on the freight I had chosen to ride out.

HE SHOWED ME THE SALES-PAPERS FOR A CLAIM HE HAD IN RAWHIDE.

This interesting fact was made plain to me when, at a passing siding some little distance out, he discovered me and two others riding on the fore-deck of a coal-car.

"You get off," he said, addressing me. "The rest of you can stay on."

This seemed to me to be railroad discrimination with a vengeance, and we had an argument, brought to an abrupt period by the production of a large, shiny six-shooter from the brakeman's pocket. I got off and stood dejectedly by the track. When the train got under way, I made a quick dive for the rods, just beating a contribution from my friend's six-shooter by an infinitesimal part of a second. It was my first effort at rod-riding, and with my usual run of luck I had selected the hardest kind. They were far apart, and there was no wooden cross-piece.

However, I stuck it out through three or four stops. At each one of them the shack would try to pick the car I was under, and perforate me as I dodged out. Luckily he was a poor guesser. That was the only "bad shack" I met on my whole trip across the continent.

Up to this time I had had excellent luck dodging an encounter with any one who would be apt to know me through the dirt and rags which I had accumulated. My narrowest escape was in Denver where I was confined to the yards by a fear of the Denver police, and determined to "mooch" a private car on a siding for a handout.

I got it, and was engaged in consuming a fried egg squashed between two rolls when Edwin Gould came out of the door of the car to take a look at the weather. He seemed, however, to regard me as a very proper appendage to the culinary department of his car, coolly looked me over without recognition, put his hands in his pockets, and sauntered out toward the station.

Mr. Bryan at Home.

At Lincoln I concluded to take a chance on the "Peerless One." It wasn't much of a risk as far as he was concerned, for while I have interviewed him a few times, it was always in company with other newspaper men, and I do not believe that he remembered me. However, I was deterred from any attempt to storm Fairview by way of the front or back door by the correspondents' tent, which contained a couple of newspaper men whom I knew very well indeed.

I was walking back down the road toward "Normal," quite discouraged, when I ran right into Mr. Bryan, who was returning home alone, driving a couple of black horses to a surrey. His team was walking up the hill, and I must have put enough emphasis into my "How do you

do, sir?" to cause him to stop, or perhaps it was the extreme shabbiness of my attire.

"Mister," I said, "I'm beating my way East, and I'd like very much to find work for a couple of days or so. Have you any?"

He looked me over carefully and kindly. Then he drew out a silver dollar.

"You don't mind my giving you this, do you?" he said. "I've had a little hard luck myself in my life." Then he added: "Go up to Mr. Ross, who has the red house on top of the hill, and he will put you to work picking peaches, I am sure."

I thanked him as well as I could, feeling that it was rather an imposition to take his money. He flicked his team with his whip. "Oh, that's all right," he said. "A man mustn't starve."

And so for a few days I picked peaches for a dollar and a half for a ten-hour day across from Fairview. I slept in the barn of a near-by farmhouse with three young Eastern boys, one of whom was a college man. They were also picking peaches. It was a mixed crowd. The boss was a vicious old Indian half-breed.

The constant stream of talk and jollying which went on in the orchard from tree to tree, touched mostly on politics. In Lincoln they talk little else—or did, when I was there.

One of the Eastern men made an unfortunate remark favorable to Mr. Taft's candidacy. From that time on he was known as "Bill Taft," and pursued with constant allusions to his politics and weight, which were regarded as the subtlest kind of humor.

The woman at the farmhouse where we took our meals had heard something of my experience with Mr. Bryan, and matched it with one of her own. "He is the best and kindest man," she said with real feeling.

Every one spoke proudly and fondly of their distinguished neighbor, although many of them were not afraid to say that they disagreed with his policies and that they would not vote for him for the Presidency. From time to time most of the boys on the peach-farm would go over to call on W. J. He was always interested in what they had to say concerning the political situation in their own home towns, and treated them with great consideration. I did not vote for Mr. Bryan, but I'm glad I stopped off in Lincoln.

From Lincoln, recuperated as to pocketbook, I had no trouble in getting down to St. Joe and crossing the State of Missouri. It was a spotty moonlight night when I walked across the railroad bridge at Hannibal over the Mississippi. There was something in the majesty of the stream, in the lights dotting the hill town on the Missouri side and the flat fog over Illinois which was reminiscent, and when, way up the river, the down stream boat began to toot for a landing, I knew what it was.

In Huck Finn's Land.

It was Mark Twain's river at *Tom Sawyer's* town. And there before me was the island *Huck Finn* and *Nigger Joe* camped out on so long ago. I worked half a day on *Huck Finn's* island cutting rattan, and then took a Wabash freight for Springfield.

It was midafternoon when I reached the Illinois capital, and I set out promptly to rustle a restaurant job. I tried a place kept by one Loper, since rather well known to newspaper fame, and was told that if I would come back the next evening I might find a chance for permanent employment, as some one was going to quit.

As it turned out, they all quit. I found another restaurant not far from the Alton Station, where I could work for my meals in the meantime.

This place was a "hangout" for the motormen and conductors on the street-car line. In the morning I noticed that instead of going promptly to work after breakfast, they hung around and smoked and talked restlessly under their breath of something about which they all seemed interested and excited.

I asked the cook, with whom as an ex-bo I had already become quite friendly, what the trouble was. He told me of the attack of the negro Richardson upon the wife of a motorman, the day before, and of Richardson's arrest and lodging in the county jail. Also, he hazarded the opinion that the car men might be planning to attack the jail, but this I put down as talk.

We heard rumors of coming trouble from time to time during the day, but when the cook and I walked up town that evening it was merely with the idea that we would go up and compare the job in prospect at Loper's with the ones we already had. There were many people about the central square. In the center, by the court-house, Mr. Chafin, the Prohibition candidate for the Presidency, was speaking from a platform which had been built out from the court-house

"YOU DON'T MIND MY GIVING YOU THIS, DO YOU?" MR. BRYAN SAID. "I'VE HAD A LITTLE HARD LUCK MYSELF IN MY LIFE."

The Night the Law Died.

As we turned the court-house corner, a man standing in the center of a group of ten or fifteen well-dressed citizens suddenly yelled at the top of his voice, "On to Loper's!"

The cry was taken up instantly, and the transition of a hundred groups of five to twenty excited men each, into a mob of hundreds welded together and fighting mad, took much less time than it has taken for me to write these three sentences.

The cook and I were in the mob, but not of it. I couldn't figure out what was happening.

"Why," said I, "Loper's is where I was going."

A tall, ungainly countryman next me grinned. "If you don't hurry up and get there, there won't be any Loper's to go to," he said.

"On to Loper's," shouted the cook. "Kill the niggers!"

I had been with him all that day, and I am quite sure that the cook hadn't the slightest idea what Loper had done or anything about his connection with the case. He had caught the mob fever.

That was all. I am reasonably certain that not one man in a dozen had heard the story of the rescue of Richardson from the jail in Loper's automobile until the destruction of his restaurant was well along toward completion.

It would take much more space than I have at hand to tell the story of the night the law died in Lincoln's town. The cook and I lay under cover all the next day, and that night we broke through the militia cordon on a freight-train bound north. The cook jumped at the first stop, but I rode her out to Chicago

Trouble in the East.

After leaving Chicago, I learned that the great difference between Eastern and Western train riding lies in the activity of the railroad detective forces which, except around the larger freight and division yards, are practically unknown in the West. I had trouble boarding a freight at Hammond, Indiana; was nearly arrested in Michigan City, and had a narrow escape at Jackson; all of which persuaded me to turn south and try to make it east that way.

In the park at Columbus, Ohio, I acquired Jimmy, who, it appeared, was "going my way," and together we beat it through Springfield and into Cincinnati over the Big Four, which I found a very hospitable road indeed. I had heard high indorsement of it from tramps all over the country.

Jimmy was a waiter, and, I believe, from the restaurants in which he had worked, a good one. Also, he was a tramp on the side. He traveled with his waiter's jacket, vest, and dickey, neatly buttoned under his outer clothing. Also, he had served time, he confessed to me, in the "stir" at Columbus.

He seemed unable to keep away from the town, although a normal mind would reason that the sight of the gray walls would be, at least, unpleasant to him. He didn't seem to regard it so.

"I blow back here every now and then to look her over," he said.

Jimmy declared that he was pinched "along of a hamburger steak."

He was a waiter in Cleveland A gentleman entered his restaurant, after having stimulated his appetite artificially and unduly, and ordered a hamburger steak. Jimmy brought it.

"Youse could see," said Jimmy, telling me the tale of his downfall as we lay that night on top of a box car, "that he didn't know nothin', and was, generally speakin', a mutt. He says to me, 'There's onions in that, and I didn't order no onions.' 'All hamburger steaks always has onions,' says I. 'Mine don't,' says he. 'You're too fresh, anyhow.'

"Well," continued Jimmy, "one thing led to another, and he biffed me one."

Thereupon occurred a battle royal; much, I fancy, to the detriment of the hotel's mirrors and glassware. Unfortunately for Jimmy, he used a piece of the latter—a decanter on the gentleman and nearly killed him. They gave Jimmy two years in the penitentiary at Columbus, which he was able by good conduct to reduce to one year and eight months. As he expressed it: "The guy like to croaked. They glommed me and sent me over. I got two stretches in the stir, but saved my copper."

HE TRAVELED WITH HIS WAITER'S JACKET, VEST, AND DICKEY NEATLY BUTTONED UNDER HIS OUTER CLOTHING.

He was put to work as the head waiter at the millionaire's table, which was, after the Chadwick trials, reasonably well filled up, and he made one hundred and twelve dollars in tips during his stay.

Jimmy was the only self-admitted convict I met on the trip, although

HE LED ME BY THE ARM TO AN OLD GENTLEMAN, THE VILLAGE COBBLER, I IMAGINE, WHO WAS SITTING ON THE DOOR-STEP OF HIS SHOP

there were many of my associates who, I am sure, could, had they had the temerity, have told a similar story.

All of them, of course, had been arrested many times for misdemeanors, principally included under the general charge of vagrancy. That I was able to cross the continent with only two arrests and without an enforced vacation as the result of either one of them, is the most remarkable part of my trip. I should hesitate to wager that I could make a return trip with equally good luck.

My first arrest was, as I have told, at Lovelock, in Nevada. The second came at Midland City, in Ohio. I had, luckily, left Jimmy at Cincinnati. If you should go there he will probably wait on you, provided you have money enough to stop at the best hotel.

I had heard that the Baltimore and Ohio had a special police system, which the tramps attribute, by the way, to Josiah Flynt, which was almost impossible to beat. I took a slow local from Ivorydale, just outside the city, and at Midland City, a junction point, I determined to get off and wait for something a little speedier. I dropped right into the arms of a railroad "bull," a square jawed young fellow in a pepper and-salt suit

He led me by the arm to an old gentleman, the village cobbler, I imagine, who was sitting on the door-step of his shop.

Sherlock Holmes in Ohio.

"I've a victim for you, your honor," he said

The court's session, if it may be described as such, was brief, to the point, and conducted almost entirely as a monologue on the part of the railroad policeman. He had a pocketful of printed forms, with a blank space or two. First he asked me my name and how old I was. Then:

"His honor finds you guilty of attempting to steal a ride on a freight-train. You are fined five dollars. If you will walk out of town, I will ask his honor to suspend sentence"

"Certainly," said I. But I grinned a grin which was nearly my undoing. "You're too anxious to go," said the bull, and he searched me.

I thought I had destroyed every scrap of paper on my person, but I was mis-

taken. In his investigations, the Ohio *Sherlock Holmes* came across a piece of newspaper "flimsy" which I had overlooked. On it was written:

AUGUST 22, BULLETIN
The body of a young, well dressed woman was found floating in the waters of Lake Michigan off the foot of Fifty Seventh Street this morning
(more) C. P

"What did you have to do with this, young feller?" he asked. Even the court woke up and assumed a languid interest in life.

I was pretty nearly stumped, but finally I made him about half believe that it was a newspaper bulletin and not a personal communication.

"I 'bummed' this coat from a newspaper man," said I, "and that paper was in the pocket."

I left him a little worried for fear he had let a murderer escape. He put down every detail of my appearance and of the fake story which I gave him, though what good it would do him after I was gone I can't see

I took no further chances on the trip, walking carefully around each of the three intervening division points and taking the same train on the other side of them, so that I experienced no further trouble with the Baltimore and Ohio

And so, with much of hardship, I came through from coast to coast. For an amateur the trip was not a bad one. The total of twenty-one divisions I made in forty-four days of traveling. I think that I could make the return trip without much trouble in half that time

The tales of many of my hobo friends of crossing the continent in ten and twelve days I believe to be a fact. I would undertake to do it myself against a reasonable wager.

In closing, I take occasion through THE RAILROAD MAN'S MAGAZINE to thank these corporations for the courtesy of a free passage over their roads:

Southern Pacific, Richmond, California, to Ogden, Utah; Oregon Short Line, Ogden, Utah, to Salt Lake City, Utah; Denver and Rio Grande, Bingham Junction, Utah, to Denver, Colorado; the Burlington Lines and connections, Denver, Colorado, to Hastings, Nebraska; Harvard, Nebraska, to Lincoln, Nebraska; Lincoln, Nebraska, to Hannibal, Missouri; the Wabash, from Hannibal, Missouri, to Springfield, Illinois; the Chicago and Alton from Springfield, Illinois, to Chicago, Illinois; the Michigan Central from Hammond, Indiana, to Detroit, Michigan, and from Detroit, Michigan, to Toledo, Ohio; the Hocking Valley from Toledo, Ohio, to Columbus, Ohio; the Big Four from Columbus to Cincinnati, Ohio, and the Baltimore and Ohio from Cincinnati, Ohio, to Gaithersburg, Maryland.

In running over this list I note, with regret, that I was compelled to walk a total of sixty-five miles.

(The End.)

WORLD'S COSTLIEST SIXTY MILES.

Treasure That Was Poured Out to Join Taft, Montana, and St. Joe, Idaho, On St. Paul Extension.

FROM a newspaper report we gather that sixty miles of the extension of the Chicago, Milwaukee and St. Paul have proved to be the costliest piece of railroad of its length in the world. This newly completed section lies between Taft, Montana, and St. Joe, Idaho, and it has cost $11,400,000, or $190,000 a mile

In this strip of road there are thirty-five tunnels, the longest of which cuts through more than eight thousand feet of solid rock. There have been small sections of railroad, notably under London, that have cost much more per mile, but their length has usually been confined within limits of two or three miles, and, it is stated, no strip of road sixty miles long can compete with this one for excessive cost

Off the Main Line.

Scraps of Fact and Chips of Humor Flying Up in the Wake of the Rushing Limited and the Pounding Freight.

FIREMEN MUST NOT FLIRT.

Chicago and Alton Warns Its Entertaining Young Men That They May Charm the Fire Only.

IT is traditional of firemen that they are young, handsome, dashing, and have a taking way with the ladies, and Chicago and Alton firemen claim that it is so with them, only more so. Therefore, it is a great compliment that the Chicago and Alton management has passed on to the firemen.

The management has admitted the claim. In fact, the management has admitted it so much as to issue a general order about it, in which it more or less gently hints that the company does not expect the firemen to do the general passenger agent's work, and if there is any glad hand and sweet smile industry needed to persuade the fair ones along the line to travel, some one else will attend to it.

Therefore, the firemen must in future stick strictly to the business of firing. They must keep a look ahead for signals and stay away from the engineer's side of the cab until the master mechanic sends them across.

The unromantic management further hints that any fireman caught in the act of attempting to influence passenger traffic of the opposite sex will be given thirty days or so of leisure in which to make a more careful study of the business.

WOMAN BUMPS FLIER.

Mrs. Young None the Worse for Disputing the Right of Way With Mile-a-Minute Train.

THE death-daring feats of the bridge-jumper and the lion-tamer have been outdone—and by a woman. Mrs. Sarah Young, the wife of a farmer of Middletown, New York, bids defiance to railroad expresses, and as they brush her from their path she calmly gathers herself together, complains of the bad effect of dust on her skirt, and wishes that engineers would be more careful.

An Ontario and Western Express was making sixty miles an hour one day last September, when Mrs. White attempted to beat it over a crossing. The race is still in dispute, one side claiming a foul owing to obstruction, but conceding a bump.

The express caught Mrs. White and hurled her a considerable distance. The engineer stopped the train, and when the crew hurried back to the remains, the remains was dusting off her skirt and surmising that she had better be going home, as the express had carried her some distance out of her way and she feared she would be late.

A MILLION-DOLLAR WRECK.

Why the Railroads Think It Pays To Spend Money to Protect Passengers and Property.

THAT railroads take every possible precaution to avoid wrecks, for their own sakes, can easily be understood when the cost of a really bad wreck is considered. Some recently published figures on the wreck of the Brewster Express on the Harlem division of the New York Central and Hudson River Railroad show the appalling cost that proves any expense for prevention to be economy.

It will be remembered that the wreck occurred near Woodlawn, February 16, 1907. Without including damage to equipment, loss owing to delayed traffic, etc., it is stated that the damage claims and other expenses, paid and in process of settlement, will cost the road $1,214,000. Of this, $659,000 was paid in claims, and the balance was for lawyers' fees, fees to agents who settled claims out of court, physicians, investigators and experts, and for trial suits

The largest amount paid for a single death was $75,000; the smallest $5,000. The average was $13,324. Eighteen of the twenty two victims were women, eleven of them unmarried, which reduced materially the damages the company had to pay, though several of the women were bread-winners.

Among the injured, the highest damages awarded have been $32,500 to a young woman whose left leg was amputated. This verdict has been appealed by the company. Settlements for injuries have ranged from $1,000 upward.

SERMONS IN RAILROADS.

Illinois Clergymen Sees Stumbling-Blocks of Every-day Life Reproduced in Railroad Building.

A SERIES of sermons of unique interest to railroad men was announced recently by Dr. Aitchison of the First Baptist Church, of Galesburg, Illinois. Dr. Aitchison and his family spent several weeks at Tolland, Colorado, forty seven miles up the Moffat Road, and the wonder of human industry concentrated on a great task so impressed him that he decided to apply the lesson from his pulpit. The subjects of the series were:

1. "Through Thirty-nine Tunnels, or Overcoming Obstacles."

2. "Up the Giant's Ladder, or Gaining a View-point."

3. "Crossing the Continental Divide, or Achieving the Impossible."

4. "The Quest for Gold, or Where Wisdom is Found."

PAYS TO PAY YOUR FARE.

A Short Story in Which the Merrimac River Plays an Unexpected Part as a Policeman.

A CITIZEN of Lowell, Massachusetts, having been to the theater at some place unknown, was returning on the theater-train to his home town. It had been a disappointment, the show had, and he felt that he had been robbed.

Following up this line of reasoning he decided that he must rob somebody else to make it square, and, casting about in his mind for a victim he decided on the railroad company. Therefore, when the conductor came around, the Lowellite refused to pay.

The conductor did not see the joke, and informed him that if he didn't pay some he would be arrested some, whereupon the gentleman made for the door and hopped lightly off the rapidly moving train.

He didn't know what was below just at that time, but the conductor did, and made a grab for him. But it was too late, and the wayfarer vindicated his principles by rolling down a twenty-foot embankment into a deep eddy of the Merrimac River.

The conductor stopped the train, and at the imminent risk of his own life a plucky brakeman dived into the river, and, after a terrible struggle, brought the man to shore. Both men were so exhausted that first aid had to be administered.

Next day a kind hearted judge fined the Lowell gentleman twenty dollars and costs, but in order to avoid breaking the run of luck inaugurated by his rescue, suspended sentence. Then the recalcitrant passenger realized that it's a good world after all, and, considering that he had had sentence suspended by a judge and had been gallantly fished out of the water by a brakeman, he concluded that he hadn't been robbed after all and proceeded to be grateful all around.

LAW-BREAKING FREIGHT.

How the Jersey Central Defeated the Ends of Justice by Carrying Off Prison and Prisoner.

IT'S bad enough to have a prisoner run off with the town prison, but when he sends the magistrate a telephone message the next day, condoling with him on the loss of the prison, it is carrying the matter to the point of actionable personalities. The Jersey Central had contributed the jail to Elwood, New Jersey, whether voluntarily or by force of circumstances we do not know, but if it was a gift they certainly took more than they gave.

Justice of the Peace Carver has a pressing manner with autoists. He recently pressed one to share his hospitality, but, as it was about supper-time, and the worthy justice would eat, the autoist, there being no jail handy, was entertained in a nice, dark, empty freight car. A friend of the autoist's had, meanwhile, been allowed to proceed with the car.

Then, while the justice supped, along came a freight-train, and, with neither levity nor contempt of court in mind, coupled up to the freight-car and went away with it, prisoner and all. The next day the prisoner telephoned his thanks for the easy escape.

The only mistake the gentleman made, as far as we can gather, was that he telephoned instead of telegraphing collect.

WHAT FERGUSON HEARD.

BY A. WEINSTOCK.

A Lone Operator on a Mountain-Top Catches a Whisper from the Spirit of the Place.

FERGUSON had been at Lantana less than a week when he made his first vigorous roar to the chief despatcher for relief. The solitude and isolation were making him a nervous wreck, he complained; and if relief were not forthcoming mighty quickly, they would have to remove him from the station in a strait-jacket. The chief despatcher treated the matter facetiously, but promised Ferguson a more congenial assignment as soon as a vacancy occurred.

Lantana, on the International, Shoshone and Gulf Railroad, was a box-car station perched among the clouds of the Declez range. To the esthetic the view from Lantana was soul-satisfying. Snow-clad peaks were transformed by the alchemy of the morning sun into an effulgent glare of towers and minarets, and leagues upon leagues of steep declivity merged into fir-covered slopes that sank away into the haze and were lost to sight in the lower world. Ferguson was not esthetic, and to him Lantana was desolation, loneliness, a foretaste of perdition and the place that God forgot.

To the northward the International's rails zigzagged tortuously up the Camel's Hump to Rawdon, on the summit. To the southward they curved their precarious way under overhanging cliffs, through a black and reeking tunnel, over a quivering trestle, and then traversing cliff and tunnel and trestle again in infinite variety, reached Gradyville, headquarters of the mountain division of the I., S. and G.

Ferguson was the product of a metropolis. For him all that was great and good and beautiful in the universe—all that he thought worth striving for—was to be found in New York.

The raging medley of incessant sound that assailed the senses of an outlander in a great city was sweetest music in his ears, and the bewildering kaleidoscope

AT LANTANA THERE WERE NO RESTAURANTS, NO SALOONS, NO HOTELS, NO THEATERS.

of motion in the busy streets was as the painter's masterpiece to him. He longed for it with an aching heart, and his brain rebelled at the magnificent distances of the Declez range

Ferguson's social instinct was highly developed. He lived for and in companionship. In his happier days his friends had dined with him, and his cronies had smoked his cigars. There was no wife or babies, and the affection men usually bestow on their families Ferguson showered on his friends.

But at Lantana Ferguson had no friends. There were no restaurants, no saloons, no hotels, no theaters. There was nothing; only a box car, in one corner of which stood the couch where he slept; in another was the sheet-iron stove on which he cooked his meals, and in the center of the car was a table to which was attached the telegraph equipment. Over all was spread a thick layer of dust, and suspended from the ceiling were weird festoons of cobwebs.

With picturesque and fluent profanity Ferguson cursed his environment. With added fervor he cursed the circumstances that had driven him to Lantana. And finally, with a vigor that jarred his box-car home, he cursed the telegraph company, which he blamed for his misfortune

For one-half of the forty-five years of his life he had served them faithfully. Then the fate which overtakes so many telegraphers befell him. His fingers lost their cunning, and he could no longer form the Morse characters with speed and accuracy

From continuous use, the delicate muscles of the fingers and wrist had become paralyzed. He lost his grip, and the telegraph company dispensed with his services.

Starvation in New York, or a job at Lantana! Which should it be? He had chosen Lantana. And now this product of the complex life, this hothouse plant whose fibers and tendrils were intertwined among the surging hordes of humanity in a great city, was transplanted to a harsh and primitive soil, and was suffering a withering blight in consequence

Ferguson vainly regretted his choice. Starvation in New York would have been the very apex of delight in contrast to the oppressive silence, the vastness, and the emptiness of Lantana.

Ferguson prepared his own meals, the one indispensable utensil being a can-opener; he cleansed the dishes and dried them in the sun, washed his own clothes, mended socks, smoothed the blankets on his bed, and swept the floor. Then, in a wild passion, he revolted at the blacking of his own boots, and calling up the chief despatcher, demanded immediate relief.

"Ferguson insists upon being relieved," reported the chief despatcher to Division Superintendent Jenkins. "He nags at me from early morning until late at night. I suggest sending him relief, if—"

"Do you think Ferguson will desert his post?" interrupted the superintendent.

"Oh, no," said the chief despatcher. "He's too old a hand at the business to play a trick like that. He will stay until he's relieved, no matter how much he dislikes Lantana."

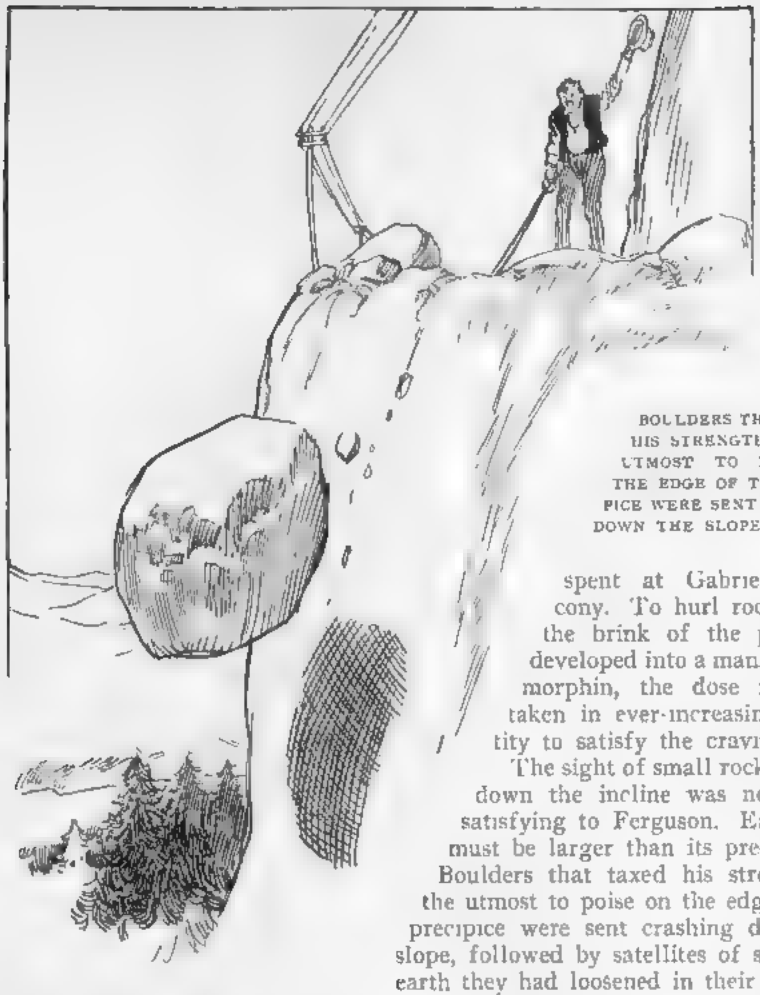
"Well," growled the superintendent, "we can't relieve him just now."

On the International, Shoshone and Gulf, between Rawdon and Lantana, and about a quarter of a mile from the latter place, was a sharp curve in the road at a point which an enthusiastic tourist, inspired by the beauty of the view, had named Gabriel's Balcony. The rough and unfeeling trainmen on the mountain division ridiculed the mellifluous title—and accepted it.

On the left of the track beetling cliffs arose abruptly. On the right, and only a few yards from the rails, was an almost perpendicular declivity of forty feet merging into a slope that sank away as steep as the roof of a house until it disappeared in the hazy distance far below

On the down grade every engineer took the curve at Gabriel's Balcony respectfully, and prayerfully, with his brakes clinched and his soul in his eyes.

Ferguson's duties at Lantana were not onerous, and he wandered up and down the track in search of some slight occupation as an antidote for the poison of



BOULDERS THAT TAXED HIS STRENGTH TO THE UTMOST TO POISE ON THE EDGE OF THE PRECIPICE WERE SENT CRASHING DOWN THE SLOPE

homesickness coursing through his veins. His first view from Gabriel's Balcony fascinated him

Almost unconsciously he picked up a rock and dropped it from the edge of the precipice. It thudded against the rocky slope after its forty-foot drop, bounded, rolled, and rebounded on its swift journey, gaining velocity as it progressed, until it darted out of sight far below.

"That's great," murmured Ferguson.

As the days passed, the fascination of Gabriel's Balcony strengthened, and, with its growth, Ferguson's desire to leave Lantana diminished. His entreaties for relief ceased, for which the chief despatcher was duly grateful.

All the time that could be spared from his few trifling duties at the station was spent at Gabriel's Balcony. To hurl rocks from the brink of the precipice developed into a mania. Like morphin, the dose must be taken in ever-increasing quantity to satisfy the craving.

The sight of small rocks diving down the incline was no longer satisfying to Ferguson. Each rock must be larger than its predecessor. Boulders that taxed his strength to the utmost to poise on the edge of the precipice were sent crashing down the slope, followed by satellites of slate and earth they had loosened in their flight.

Ferguson wondered vaguely whither these rushing boulders hastened so eagerly, and meant some day to mount a massive rock and journey down with it, to learn their destination.

And one day there came the Voice just as Ferguson had started a monstrous rock down the incline.

"What if that had been the Eagle Limited?" the Voice suggested

"What's that?" asked Ferguson, not comprehending.

No answer! Ferguson glanced up and down the track. There was no one in sight.

"Huh!" said Ferguson. "Mighty funny," and resumed his absorbing occupation.

As he sent another sphere of granite catapulting from the Balcony, Ferguson

heard the Voice again: "What if that had been the Eagle Limited?"

With eyes staring at the fast vanishing rock, he answered: "Yes, that would be exciting."

It was a friendly Voice, and it often came to cheer his heartrending loneliness. Ferguson pleaded with it to stay and share his quarters in the box car.

And the Voice knew New York—his New York—and soon a bond of eternal brotherhood was sealed with tears of joy on Ferguson's part for the presence of this unexpected comrade in the wilderness.

Not many days after the Voice had first made its presence known, it spoke long and earnestly to Ferguson, and as he harkened, the light of wild anticipation gleamed in his eyes.

From under the couch in the corner he drew a crowbar, wrench, and sledge hammer. These he carried to Gabriel's Balcony, and, according as the Voice commanded, he wielded the tools, singing as he toiled.

When the work was done, the Voice and Ferguson waited impatiently. The Limited came to its fate with no warning. From the verge of Gabriel's Balcony it plunged, coach trailing coach. Rocks and earth detached from the precipice pursued it as it fell.

Down the steep incline rolled twisted metal and splintered timbers, enshrouded in an ever-swelling mass of rock and soil. It grew into a roaring avalanche, and as it struck the timbered slope it added trees of century growth to its appalling bulk.

It was no mean death that Ferguson had wrought for passengers and crew, and no man may say, in truth, where they found sepulcher.

At Gradyville, Superintendent Jenkins ordered out the wrecking-train. The Limited had left Rawdon on time, but was hours overdue at Lantana, and repeated efforts to gain a response from Ferguson were fruitless.

The wrecking-crew found Ferguson seated on a huge boulder where the L., S. and G. track made the turn at Gabriel's Balcony, gibbering incoherently. The impalpable spirit of the mountain, the immensity of space, had crushed him with its mystery.

It was the fertile imagination of Superintendent Jenkins that evolved the landslide theory for newspaper consumption, to account for the absolute disappearance of the Eagle Limited. Jenkins knew railroading from a fish-plate on a spur to the manipulation of stocks in Wall Street, from the construction of a shoo-fly track around the débris of a wreck to the concoction of a shoo-fly tale for the reporters, and he handled the situation with masterly resourcefulness.

And the Voice came no more to Ferguson.

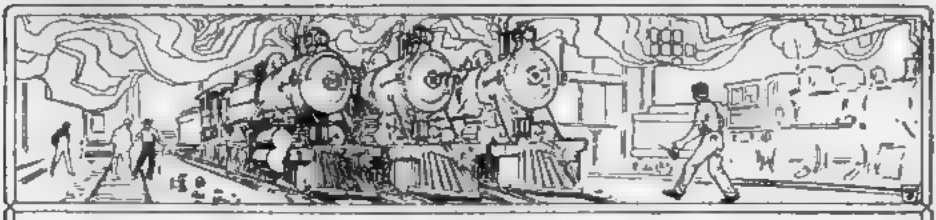
RAILROADS AND WOMEN'S RIGHTS.

Even the Modest Merry Widow Will Rest Conveniently in the Paper Bag Provided by the Company.

WOMEN may have difficulty in getting their value as voters recognized, but their value as travelers is never underestimated. The latest proof of this is the bowing down of railroads at the altar of perishable millinery.

On this one point the railroads have heretofore kept their independence with remarkable courage. They have refused to recognize their responsibility for the well-being of the extra fragile freight carried uncrated in Pullman cars, but at last some road elected a majority of married directors to its board, and the thing was done, and without any fuss too.

Now they are beginning to hand out large paper bags for the reception and protection of the creations in transit, and, to complete the defeat, they have had to make them large enough to embrace the ample circumference of the Merry Widow or its equally large successors.



THE CLAIM AGENT.

BY J. E. HUNGERFORD.

Written for "The Railroad Man's Magazine."

YOU can talk about the ticket-men who get it in the neck;
You can talk about the baggage-men with troubles by the peck;
But the man who gets the worst of it and shoulders all the blame
Is the man behind the roller-top who straightens out the claim.

There are claims in every pigeonhole and claims on every hand;
There are claims from every quarter of this busy, crazy land;
There's the honest ones—the foolish ones—the ones that smack of "scheme,"
And they're pouring in upon him in a never-ending stream.

There's a claimant who is kicking 'cause his horses weren't fed;
There's a letter from a woman who has lost a feather bed;
There's a fellow says he got a car of fruit instead of beef,
And another calls the agent "a darned liar and a thief."

There's a kicker claims he drew a box of "tracts" instead of "booze,"
And a preacher writes he's got a case of "stuff" he doesn't use;
Oh, the world at large reviles him, and it calls him bitter names—
That poor guy behind the roller-top who straightens out the claims.

Oh, he has to bear the burden of a million men's mistakes;
Oh, he has to pit his brain against the "bluffers" and the "fakes";
And his job don't end with packing his own never-ending loads,
For he has to help his fellow men on all the "foreign" roads.

You can talk about the ticket-men who get it in the neck;
You can talk about the baggage-men with troubles by the peck;
But the man who gets the worst of it and shoulders all the blame,
Is the man behind the roller-top who straightens out the claim.

AT BAY ON THE LIMITED.

BY JOHNSTON McCULLEY,

Author of "Richard Hughes Railroad Detective," "Land of Lost Hope," "Ballast o' Bones," Etc.

Professor Berthold Is Told His Own Name and Wonders About His Companion's.

SYNOPSIS OF PREVIOUS CHAPTERS.

SEEKING material for magazine articles, Professor Herbert Berthold is beating his way on the "blind" of the limited from Chicago to the coast, when he falls in with a young woman, disguised as a boy tramp. He accidentally pierces the disguise and she presses him into her service. She instructs him to leave the train, and, during its stop at Kansas City, buy himself good clothes and accommodation for them both on the limited. His movements excite suspicion. He is accosted by the police, and, seeing the young lady as the train is about to leave, he turns to her for confirmation of his story. She denies having seen him before.

CHAPTER V.

A System of Signals.

SHE denied me! And at the moment when so much hung upon her recognition. Very well. She would miss her train, and the end of the difficulty would be that I would prove my identity and be set at liberty, while she would fail in her undertaking, whatever it was. That was my first thought.

When she denied me I showed my surprise and disgust, I suppose, in my face. For, as she looked at me, her own countenance changed suddenly, as though she realized that she had made a serious mistake. Had she, then, denied me because she thought I *want a* her to do it?

In the second that followed I decided that this was the case. The policeman had turned upon me, and was grinning at the expression on my face.

"So you lied to me?" he said. "Your little game of bluff didn't work, did it? Now, you'll go to headquarters with me and explain about changing your clothes so quickly, and about that hundred-dollar bill, too. Come along!"

I stooped to pick up my grip. As I did so I noted that the limited, which was on the first track, was just starting. The girl was beside me, the officer behind me, the gateman watching at the departing train, with his back to me.

Before the policeman could divine my intention I picked up my grip, grasped the girl by the arm, and dashed past the astonished gateman. The girl was quick to recognize my subterfuge, and ran beside me toward the train.

Behind us came the gateman, shouting and waving his hands. Farther back was the policeman, who had recovered from his surprise and realized that I was escaping.

We escaped because the gateman tried to stop us. That may seem a peculiar statement, but it is true. When the porters saw him waving his hands wildly they sprang from the moving train and ran beside it, motioning for us to hurry. As we reached the train one grasped my grip and threw it to the vestibule, another helped the girl, and I caught the grab-rail and swung aboard, looking back to wave farewell.

Began in the January Railroad Man's Magazine. Single copies, 10 cents.

"Just made it," a porter said to me

I gave him a dollar for that smile. They thought that the gateman waved and shouted to attract their attention and get us safely aboard. For the first time in my life I blessed porters.

We were standing, breathless, in the vestibule. A porter took our tickets, and led the way to the proper car The girl went to her drawing-room, and I sat down in my section, facing the drawing room, as she had instructed me, and still gasping for breath. The other passengers in the car were commenting on our race to catch the train.

Presently another man came down the aisle of the car, and I felt a chill as I caught sight of his face. It was the man I had noticed in the depot—the one with the long scar on his right cheek. He must have run to catch the train, too, I thought.

What a peculiar coincidence that we should now be in the same car! I'd keep away from him, I decided. A man who didn't have better breeding than to stand around and listen to another man's conversation with a policeman—he was no gentleman, anyway, and I could get along very well without his society.

When the conductor entered our car I went forward to the drawing-room and gave the girl her tickets. Then I returned to my section. She said nothing to me, and I took her silence to mean that she did not care to speak yet.

I gave my own ticket to the conductor.

"Had a narrow escape, didn't you?" he remarked pleasantly. "Good of you to help the lady, too."

"Just a trifle," I answered. "Yes—it was a narrow escape. If it hadn't been for the porters, we'd never have made it."

"Liable to be a romance, if you're not already a married man," he whispered, as he gave me my check

He said it in a nice way, though, and smiled pleasantly. There was nothing vulgar about his manner.

"Perhaps," I said, smiling just as pleasantly, "the trouble may be on the other side—the lady may be married."

"In that case I'm sorry for you," he said, and passed on.

He came to the man with the scar "Tickets," he said.

"Had to run to catch the train," the man said. "Didn't have time to get a ticket."

Peculiar, I thought, considering that he was traveling on the limited.

"Where are you going?" the conductor asked

The man with the scar hesitated. "Trinidad," he said finally. "Can I have a section in this car?"

The Pullman conductor said that he could, and both conductors began making out cash-fare checks. The man with the scar pulled a roll of bills from his pocket, asked the amount, tendered it, got his change and his checks, and settled down in the seat and stared through the window

I had regained my composure now, and was wondering what the next move would be. Glancing toward the drawing room, I saw that the girl was motioning for me. In the face of the remarks the conductor had made, it would be confusing for me to go to the drawing-room at once, and so I remained in my section until the conductor had left the car.

Then I made my way to the vestibule, and as I came back I slipped into the drawing-room. She closed the door behind me, but allowed the curtains to remain raised

"For the sake of propriety," she said.

What manner of girl was she, I wondered, to ride the blind of a passenger-train dressed in overalls, and yet fear to outrage propriety by lowering the blind of a window? I sat down and looked at her. Yes, she was beautiful—there was no doubting it. She looked every bit the fashionable society woman of the present day.

"How on earth," I asked, "did you get into those clothes?"

Her laughter rippled deliciously. "You wonder at that?" she replied. "Why, I had this costume waiting for me in the baggage-room at the station. I went in and got it, took a cab to a hotel, obtained a room, and changed."

"But how did you get the grip?" I asked.

"Presented the check which I had for it."

"And then went to a hotel, dressed—" I stopped in confusion.

"Don't ask too many questions," she

said, laughing again. "I went to a hotel—yes—and engaged a room. They took me for a boy, I suppose, and, as I paid in advance, they made no objection. As soon as I was in my room I bathed and dressed, left the other clothes, went out to the street by a side entrance, took another cab, came to the station, and—waited for you."

"But your hair—that's been dressed! And your face—"

For the second time I stopped in confusion. But it was all so bewildering that I had the right, I thought, to make a thorough ass of myself.

"Mr. Berthold," she said soberly, though her eyes twinkled, "you are asking too many questions. Is it anything wonderful if I am able to dress my hair and care for my face in an hour?"

"I—I suppose not," I hastened to say. "Of course I don't know much about it. I was judging from the jokes I've read—the ones which tell about its taking a woman so long to get ready to go any place."

"Never judge a woman by a joke," she said. "There are any number of jokes alike, but no two women."

Suddenly I remembered our late experience. I had forgotten it in the intoxication of her transformation. "Why did you deny me to that policeman?" I demanded.

She turned toward me. "Because," she replied, "that was what I thought you wanted me to do. I thought, from your attitude, that I was getting you out of trouble by saying I didn't know you."

"Whereas, you were getting me into deeper trouble," I said. "The officer stopped me because he thought it suspicious that I should change my clothes so quickly and pay for them with a hundred-dollar bill. He suspected me of some crime; he admitted as much—said there had been a murder, and that some hundred-dollar bills were missing. I suppose, when you come to think it all over, my actions *were* suspicious."

"And what did you tell him?" she asked.

"Well," I said, flushing, "he cornered me. I tried to identify myself, and told him I had changed my mind about tramping, because there was a young lady on the train with whom I desired to ride as a passenger. I was forced to intimate that we were going to Los Angeles to be married.

"He had me at every turn—oh, I'm an awfully poor manufacturer of falsehoods! Finally I grew desperate, and offered to show him—told him I'd point you out, and he was to go up and ask you my name. If you answered correctly I was to be released."

She laughed again. "And by denying you I got you into more trouble," she said. "Well, it must not happen again. We'd better have a system, if you are so poor at deception. After this, when a question is asked me, and you want the answer to be affirmative, drop your hand to your side, with the palm turned toward the front; negative—palm toward the rear. I'll do the same."

I went through the signals until I had them correctly. Yes—palm to front; no—palm to rear.

"But," I said, "you don't expect another mix-up like that, do you?"

"We must expect anything," she answered.

"And just now," I said, "we can expect breakfast. I suppose you realize we haven't breakfasted?"

"I was wondering how long it would take you to realize it," she said.

"Let's go in, then," I answered, rising. "I suppose we can go together—it is safe?"

"Not only safe, but necessary. You seem to forget that I want you within sight all the time—that you are to guard me."

"I'll not forget it for an instant," I said

We left the drawing-room, and journeyed to the dining car.

CHAPTER VI.

Telegram for Mr. Berthold!

WE secured a table for two, ordered, and were soon enjoying the meal. The dining car was well filled with people, and there were some who glanced at us repeatedly and smiled, and imagined, I suppose, that they were on hand at the budding of a romance.

The train was speeding across Kansas in the beautiful morning. One could

appreciate the fact in the dining-car infinitely more than from the blind baggage. I began wondering whether I was dreaming, and whether the awakening was not near at hand. The past few hours had transformed me from tramp to passenger, had placed under my protection a beautiful young lady, whose name I did not know, and who was threatened by some danger which I did not understand. Moreover, I was in honor bound not to ask.

We ate our breakfast, and started to leave the car. In the first vestibule we met, face to face, the man with the scar. He stepped to one side to let us pass

The man was beginning to get on my nerves, for I seemed to meet him at every turn. I noticed that the girl turned her face away as she passed him, and seemed to be strangely agitated after he had gone; but she said nothing, and, of course, I did not question her.

We went back to her drawing-room, and talked some more. As we talked—it was perhaps three-quarters of an hour after we returned from the dining-car—the man with the scar passed close to the drawing room window and looked in.

I glared at him, and I thought he smiled. The girl's face had gone white. "What is it?" I asked

"That man—he frightened me."

"You know him?"

"N-no."

"Ever see him before?"

"I saw him in Kansas City. I thought—once—he was watching me at the station, before you came"

"He was watching me at the station, too," I replied.

"You are sure?" she asked

"Certain of it. He seemed to be interested in my conversation with the policeman."

"Then we must be on our guard," she said. "He is either one of them, or some one working for them."

"One of whom?"

She turned upon me quickly. "I was speaking for myself, and didn't intend you should hear," she said. "Besides, you are not to ask questions."

"I beg your pardon," I replied. "You think, then, we must watch him?"

"I am almost sure of it. There can be no harm in keeping an eye on him."

"Will he try to harm you?" I asked.

She threw out her hands, in a gesture of despair.

"I do not know," she said. "I have no idea what they will do, or where they will do it. I know only that I am in constant danger, that there are certain people who will make a move against me if they know as much as I think they know, and if they find themselves in a position to prevent me from—"

She stopped. I waited for her to go on, hoping she would favor me with an explanation. Instead, she turned to me and smiled

"However," she said, "all you have to do is guard me without mixing in matters yourself, any more than you are forced by circumstances"

"My dear young lady," I said, leaning toward her and speaking in a lower tone, "perhaps it would be better and more sensible if you would explain this affair to me. There may arise circumstances where a little knowledge of the situation on my part would not be amiss."

"I can tell you nothing," she said. "It would never do. You must not try to understand. I have a duty to perform, and I must do it alone. There is a problem to solve, and I must solve it alone. You cannot help me in the solution, but you can stand beside me and see that no violence comes to me while I am working on it. Do you understand?"

"You mean you are trying to do something that you must put through alone?"

"That is it," she answered. "And although it would not do for you to aid me, yet it is all right for you to watch over me, and to help me in any extremity, so long as you do not know whom I fight and for what purpose."

"I'll ask no more questions," I said, "that you can't answer. But this fellow with the scar—"

"We must be on our guard against him. You must see that he does not outwit us in any way."

"Without knowing how he may attempt it?"

She laughed up at me. "It is rather mysterious, Mr. Berthold, isn't it?" she said. "The only thing you can do is watch—watch—*watch!*"

We talked some more, and then she instructed me to leave her and go to my section. The other passengers must not talk about us, she said. So I obeyed her, and settled in my section again, pretending to read a magazine, but in reality watching the drawing-room over the top of the periodical.

The fellow with the scar, I noticed, was in his section across the aisle, and just back of mine. Before I had been in the seat ten minutes he rose and walked over to me.

"I beg your pardon," he said, "but may I borrow your fountain pen?"

"You force me to admit that I am not carrying a fountain pen," I replied, without more than a glance up at him.

"I left mine behind, too," he said. "Confounded nuisance, isn't it? I suppose I'll find pen and ink in the observation-car, though. These modern trains certainly have every advantage."

"Very good trains," I acknowledged.

"Are you going far?" he asked, sitting on the edge of the seat.

I dropped the magazine, looked up at him, and—glared. "My dear sir," I said, "I am going as far as my ticket takes me."

"I meant no offense," he gasped. "Just wanted to get companionable. I don't like to sit around in a car all day without talking to some one."

"Of course it is a lonesome business," I replied, ashamed that I had rebuked him with such force.

"It oughtn't to be lonesome for you," he said. "You are fortunate enough to have a lady friend on the train. I've been from one end of the train to the other already, and there isn't a friend of mine—man or woman—aboard."

"That so?" I said, a little angered by the fact that he had mentioned the girl, even indirectly.

"I saw your race to catch the train," he volunteered.

"That so?" I said again. "I believe you had to race to catch it, too, didn't you? I saw you in the station as I was leaving."

That was a good idea, I thought—to let him understand that I knew he had been watching me. But it didn't seem to bother him.

"I saw you in the station, too," he said. "I saw that policeman talking to you. Take you for some one else?"

"Not exactly," I said.

"I heard you tell him that you had been tramping with tramps, just to get the experience. I heard you explain about the young lady, too. But he didn't believe you at first, did he? These policemen are so dense at times."

"They are," I admitted. I did not like his words, I didn't like the way he tried to bring the conversation back to the girl, and I think he realized it from the way I spoke. Anyway, he changed the subject.

"Ever play cards?" he asked.

"Now and then."

"Let's have a game. What do you say?"

"I'm willing," I replied, thinking I would have a chance to study the man over the card-table.

"In the smoking room?" he asked.

"Yes."

"I'll get the table ready. We're almost at the first stop, and we'll begin the game after that, if you don't mind."

"Suits me," I answered.

He hurried away, seeking the porter. His words had put me suddenly on my guard again. The first stop! Would not that policeman wire ahead to stop *me*. For surely he was convinced of my guilt, now that I had run away from him. And especially so, I thought, when I stopped to consider the fact that the girl, after denying me, had escaped in my company.

I began to grow nervous about that first stop. The locomotive whistle already announced it, and the train was slowing down as it rattled into the yards of the division point. I left my section and walked by the drawing-room, glancing in. The girl was sitting near the window, and beckoned when she saw me.

"You were talking to the man with the scar?" she said accusingly, when I was inside the drawing-room.

"Yes," I admitted.

"Be very careful, Mr. Berthold."

"In what way, do you mean?"

"Be careful what you say to him. Especially, do not answer questions about yourself, or about me. I am not certain, of course, but I think he is one we should fear and watch."

"I have arranged to play cards with him," I said. "I thought it possible I might learn something from his conversation."

"Very well," she answered. "But be very careful. Do not let him learn more from your conversation than you do from his."

I assured her I would be careful; then I left her and went back to my section. The train had stopped, and the door at the front of the car opened and a trainman came in holding a telegram in his hand. At his heels was another man, not in uniform, who looked critically at each man as the trainman inquired his name.

That telegram—was it a trap? Suppose it was addressed to me, that I acknowledged it, that the man behind the trainman was an officer waiting to take me into custody. I had given that Kansas City policeman my name, of course. And so such a subterfuge to catch me would be more than likely.

But perhaps the telegram was not for me. If it was, it was a trick, certainly, for none of my friends knew where I was, and if they had known, they would not have sent me a telegram in care of the train, for I was supposed to be tramping, and not riding in a Pullman.

The man with the telegram was coming nearer. He had reached the man in front of me.

"Telegram for Herbert Berthold," I heard him say.

I flinched in spite of myself. The next instant he was standing beside me.

"Telegram for Herbert Berthold."

I shook my head, and he passed on. The man behind him looked me straight in the eyes for a moment, and I returned his stare as brazenly as possible. But he said nothing, nor did he look at me again.

So the telegram was for me. They had attempted a trick. And I had refused to walk into the trap.

It was impossible for me to refrain from smiling. I turned in my seat carefully, to look after the trainman and his companion. The man with the scar, I noticed, was approaching down the aisle from the smoking room, where he had been preparing the table for cards.

He reached the trainman, and was stopped. I saw the trainman say something—ask him whether he was Herbert Berthold, I suppose—and saw him nod in reply. But his nod was affirmative, and a few seconds later he held in his hand—*the message addressed to me!*

CHAPTER VII.

I Read the Message.

MY first impulse was to run forward and demand an explanation. In the next second I remembered that such an act on my part would seem rather peculiar to the trainman, since I had already denied being Herbert Berthold.

Another thing puzzled me—for, whereas I was afraid to take the message on account of a possible trap, it seemed that there was no trap. For the man with the scar was allowed to go when he had receipted for the telegram, and the stranger who accompanied the trainman, I noticed, stepped from the train and went into the station, as though employed there.

If it was not a trap, then, was the message a legitimate one? And since it was addressed to me, what was it about? Had I made a serious mistake?

I began to rack my brain to discover who could have sent me a message, but no matter how hard I tried I could find no solution to the problem. There was no one in the world, as far as I knew, who would have wired me. Yet the message had been addressed to me, I had denied it, and another had claimed it, and what did it contain?

As I battled with this problem the man with the scar approached and said that the card-table was ready. I followed him to the smoking room as the limited pulled out from the station and began her rush toward the west again.

There was one thing which I had determined—I would get possession of that message and read it. And there was another thing which I hoped to accomplish—to learn why the man with the scar had taken a telegram addressed to another man.

We entered the smoking room and seated ourselves beside the card-table. He dealt, and we began to play, sending up clouds of fragrant smoke.

"I'm a regular *Sherlock Holmes,*" I said finally.

"How's that?" he asked.

"I can tell you your name, although it isn't on the end of your bag, and no person has spoken it to me."

"That so?" he said. "Let's hear it."

"Herbert Berthold," I said

He glanced at me peculiarly, then smiled down at the cards he held in his hand. "How'd you ever guess?" he asked.

"Simply enough, and I didn't exactly guess. The trainman came through with a message for Herbert Berthold, and I saw you receipt for it."

"So that's how you learned my name?" he said, with a short laugh

"Yes."

"I know yours, too, though no one has told me, and it isn't on the end of your bag, which is rather new," he said, with peculiar emphasis.

"Let's hear it," I said.

"Herbert Berthold."

"I—I beg your pardon," I stammered.

"Herbert Berthold," he repeated.

"But—"

"Peculiar thing we both have the same name, isn't it?" he said.

"Very peculiar," I remarked.

He laughed again, threw down his hand, and I shuffled the cards.

"Hope there was no bad news in the message," I said, as I dealt. "I have a horror of messages delivered on trains."

"So have I—of *some* messages," he replied.

He gave his words that peculiar inflection again. I looked him in the eyes, trying to read his intention. As I did so he drew the message from his pocket and glanced at it. It was still unopened.

"Oh, you haven't read it?" I said.

"Certainly not," he said. "It wouldn't have been gentlemanly."

"What do you mean?" I demanded.

He laughed again, glanced around quickly to see that the porter was not in the apartment, then tossed the message on the table.

"There is your telegram," he said.

"*My* telegram!" I exclaimed.

"Certainly—your telegram. I thought, when I realized that you hadn't accepted it, that perhaps you were afraid of a trick. I saw you dodge that policeman at Kansas City, remember, and just figured that you were afraid he was trying to catch you with that message, and so refused to receive it.

"So I said that I was Herbert Berthold—thought I'd get the message for you. Understand? Wanted to help you."

I looked him straight in the eyes again, and that devilish smile was upon his lips. This was another trap, I thought—a trap to get me to admit that I was Herbert Berthold, for some fell purpose. The girl had told me to beware the man.

"You are mistaken," I said. "The message is not for me."

"Isn't your name Herbert Berthold?"

"What made you think that?" I asked.

"I heard you tell that Kansas City policeman that your name was Herbert Berthold. You needn't be afraid of me I'm not an officer. Take your message, man."

"But I tell you it isn't mine."

"Nonsense," he said, laughing again. "Take it, and read it before some one comes in. It's none of my business. I just thought I was helping you out."

"If that's the case," I asked, "what would you have done if it *had* been a trick to catch and arrest Herbert Berthold?"

"What would I have done? Made them believe that I had misunderstood the name, prove that I was *not* Herbert Berthold, and let it go at that. Aren't you going to read your message?"

"I tell you," I said, "that it isn't my message. You've receipted for a message addressed to this man Berthold, and now you have it on your hands. I don't want to have anything to do with it. I'm not ready to be jailed for impersonating some one else. You did a foolish trick."

"I thought I was helping you out," he said. "And you did tell that Kansas City policeman that your name was Herbert Berthold, you know."

"Well?"

"You were—er—impersonating some one else at that time?" he asked pleasantly.

I could have cursed him. Was I

doomed to be overmatched at every turn of the game of wits?

"Very well," I said. "My name is Herbert Berthold, and the message is mine. Well?"

I waited for his dénouement. He would arrest me, I supposed, and take me from the train to return me to Kansas City. Then I would have to explain at length and identify myself, and the name of Professor Herbert Berthold would be heralded throughout the country by an unsympathetic press as the name of an easy mark. That would be no great and respectable addition to the reputation of a professor of physics.

"Well?" I said again.

"Read it, and let's get on with the game," he said, looking at his cards.

I looked at him in surprise. Was the man telling the truth? Was he really an innocent fellow passenger who had thought he was doing me a service when he receipted for the telegram? Had my reasoning failed me again?

"Play," I replied, "and I'll read the telegram later."

He played, and for several minutes we devoted our entire attention to the game. Then, when it came time for him to deal again, I sat back in my chair, picked up the yellow envelope, and looked at it. I was at sea absolutely, and didn't know which way to turn to find a safe shore.

There was but one thing to do, was my decision, and that was to brazen it out—to take the chances. There was certainly some mystery about the telegram, for there was no one who would have sent me a message

"See here!" I exclaimed. "This telegram business is very peculiar. I was startled when the trainman called my name, and I'll admit that I thought it a trick of the Kansas City police to stop me for some fancied crime. That was why I refused the message.

"Now, none of my friends or acquaintances or business associates—no person in the world, to be exact is aware of my exact whereabouts. So, how on earth could a message be sent to me? There's a mystery, perhaps some sort of a trap, and I'm half inclined to believe you are mixed up in it."

He did not get angry, as I had expected, but looked surprised instead. "I beg your pardon," he said finally, starting to laugh, "but the idea is ridiculous. Read your message, and stop your worrying. That experience with the policeman has taken your nerve."

I tore the yellow envelope open, unfolded the slip of yellow paper, and read:

> Herbert Berthold, on board California Limited—Right; Serapis; Canton.
>
> R.

"What sort of a fool thing—" I began.

Then I stopped and looked at the top. The message had been sent from Kansas City within a few minutes after the limited's departure. I had received it at the limited's first stop. But the message itself? What on earth did it mean? Who was "R," and why did he wire "Right; Serapis; Canton"?

"I hope it isn't bad news," said the man with the scar.

"It's no news at all," I ejaculated. "It's some fool trick—a bunch of words that are absolutely meaningless. Look at the thing."

I threw it on the table between us. He dropped his cards with a deliberate motion, returned his cigar to his teeth, and put forth a hand to take the message. The curtains about the entrance were parted like a flash, there was the sudden swish of skirts, and a small hand darted across the table and snatched the yellow message away.

Both of us sprang to our feet. Before the table stood the girl of the drawing-room, her face flushed, her eyes dilated, her breast heaving, the message crumpled in her hand. There was a look of horror in her face as her eyes fell on me. Even as we sprang to our feet she spoke, turning from him to me.

"Gracious Heavens! would you have let him read it?" she gasped.

CHAPTER VIII.

A Newspaper Clipping.

AS she spoke, and as I stared at her, bewildered by her sudden appearance, the man with the scar laughed loudly and triumphantly.

"So?" he said; and then, with a mock bow, he stepped to the door, and was gone before I could recover my wits.

"To the drawing-room—quickly!" she ordered.

I followed her. In the drawing room, after she had closed the door behind me, she sank weakly on the seat near the window, breathing heavily. She did not speak for some time, and I waited.

"I am sorry," I said finally, "if I have made a blunder."

"You almost made a serious one," she said. "As it is, you have forced me to betray myself."

"Betray yourself!" I gasped in astonishment. "How do you mean?"

"But it is my fault, in a way," she said. "I had reasons for not wanting a telegram delivered to me personally on this train. I expected one to be sent, however—several of them, in fact—and so I gave your name to a certain person, knowing you would be traveling with me, thinking you could receive the messages without arousing the suspicions or curiosity of any one, and hand them on to me at your convenience. I neglected to tell you of the arrangement."

"That makes everything clear," I said.

I told her of my rejection of the message, of the acceptance of it by the man with the scar, of our conversation in the smoking-room—everything.

"But what does it all mean?" I asked. "The message is in cipher, I suppose?"

"It is an important message—and in cipher," she said. "All that I can tell you is that the man with the scar suspected me of being who I am, and I suspected him of being some one else. Neither of us was sure, and each of us didn't want the other to be sure.

"I was forced to keep him from reading the telegram, because—well, no matter—I was forced to keep him from reading it. My action betrayed me to him—he knows now that I am the person he seeks, and he can act in safety. You see, he wasn't sure before."

"All this is very mystifying," I said.

"But he betrayed himself, too," she added. "It will be an even match from now on—he knows me, I know him. He will watch me, and try to conquer me; I'll watch, and try to conquer him."

"But the message—"

"The message is from—from a friend in Kansas City, a friend I met and spoke with while we were there. It tells me—certain things. If the man with the scar had read the message—well, he would have known what I know now, since reading it myself."

"Then the man with the scar knows your cipher?" I asked.

"From past occurrences I have reason to believe that he does," she replied.

"And you expect other messages?"

"Yes, and you must get them, for they will be addressed to you. He'll try to get them now—try to read them. The train-crew will change at the next stop, and you can call yourself by your right name in safety. Be sure to get every message, for if he reads one of them—"

She ceased speaking, and shrugged her shoulders suggestively.

"And where will we receive the messages?" I asked.

"I do not know. Perhaps at the next stop, perhaps not until to-morrow. I have no idea how many will come, whether any more will come at all. The messages keep me informed of certain things."

"Surely you can trust me by this time, surely you know that I am Herbert Berthold, and none other," I said. "And if you can trust me, don't you think it would be much better if you made me aware of circumstances? Perhaps I could help you more, if I knew all about things."

"I can tell you nothing—really," she answered. "Please don't ask it now. Just help me, and in the end you will know all, and be well rewarded."

"My dear madam," I said, "since I promised to see you to the end of this affair, whatever it is, you may rest assured that I shall keep my word, no matter if I *am* forced to work in the dark."

"Thank you, Mr. Berthold," she said.

"There is one thing, however, which I would like to know," I went on to say; "that is, your name?"

"Why do you wish to know that?" she asked.

"If not your right name, then one I can call you by," I said. "It is possible that I may want to speak to you in

public, you know. One never can tell, and we should be prepared."

She hesitated a moment. "Call me Miss Benton," she said. "That is not my name, but it will serve the purpose."

"Admirably," I said. "And now, Miss Benton, what is the next move in this very peculiar game?"

"We must wait for the enemy to make the next move," she replied. "If I am not mistaken, we shall not have long to wait."

"You are afraid of this man with the scar afraid he will do something to injure you or your purpose?" I asked.

"Yes," she said.

"Then," I answered, "the best thing is for me to watch him all the time."

"When you can do it without getting too far from me," she said. "He may not be the only one."

"There are others?"

"There may be," she said.

I threw up my hands in a gesture of despair.

"The case is a hopeless one," I said. "I find myself in deep water. I'm surrounded by mystery that would drive almost any man insane, but I'll do the best I can for you, Miss Benton. Shall we lunch together?"

"Presently," she said. "Just now you may leave me, and smoke or read. I'll draw the curtains and lock the door. I want to think—to be alone for a few minutes. This message has informed me of certain things, and I must formulate a plan for meeting new conditions. If you should want me badly, rap on the door three times, wait a bit, then repeat."

She was drawing the curtains as I left her to return to my section.

The man with the scar was not in his seat, and I decided not to look for him at present. I could watch the drawing-room and, at least, he could not approach it without my seeing him. And I needed a few minutes by myself, in which to compose my mind and regain control of my shattered and scattered nerves.

The locomotive whistle shrieked again as we approached the next stop. When the train slowed down I was at the open door in the vestibule, and before the wheels had ceased to revolve I was running across the platform toward the telegraph office.

"Any message for Herbert Berthold?" I asked.

I was assured that there was none; that none had been received at any time that day. Then I left the telegraph office and started back to the car.

Half-way across the platform I noticed the man with the scar. He had gone forward, as though to watch the exchange of locomotives. As I watched I saw him make a peculiar motion with his hand, and in a few minutes another man approached from a position near the freight-sheds.

The stranger was dressed in greasy overalls and jumper, but I could not tell whether he was a tramp beating his way on the limited or a railroad employee stationed in the town. The two men talked for some time, then the stranger went back to the freight-sheds, and stood there watching the preparations for the change of crews. The man with the scar hurried back along the train and, without as much as glancing in my direction, boarded a car some distance ahead of the one in which we both had sections.

I watched as the train started to pull out, watched from the open door of the vestibule, leaning far out in spite of the warnings of the porter behind me. But I was rewarded, for the man in overalls dashed forward and swung on the blind as the train gathered speed.

He was traveling with us, then. I wondered if his presence on the train meant danger to me or to the girl, because of something that the man with the scar had told him.

When I went back to my section the man with the scar was already in his seat and reading a newspaper as though nothing had happened. I watched him for several minutes, and finally he threw the paper down, and started to rise from his seat. Then he hesitated, picked the paper up again, cut something out of it, put the clipping in his pocket and, rising, turned and came to me.

He was smiling as he bent over me. "Shall we conclude our interesting game of cards?" he asked. "Now that there is no message to bother us, we may be able to play."

"With pleasure," I replied, and followed him to the smoking-room again

We arranged ourselves comfortably, got our cigars going, and he shuffled the cards. "Peculiar interruption we had," he commented, "when we were playing before. I'm glad there was no one near. It would have been confusing."

"It would," I admitted.

"Very peculiar," he went on.

"Ought we to talk of it?" I asked blankly.

"Not if you object," he said. "You know the young lady, of course, and I do not. I was the innocent bystander. You asked me to read the telegram, and I started to comply—"

"I think," was my interruption, "that we had best not talk about it."

"Very well," he said. "Cut the cards."

For several minutes we played in silence, chatting of commonplace affairs. Then he drew the newspaper clipping from his pocket and tossed it on the table.

"Peculiar thing I was reading," he said, as he gave his attention to the cards again.

I picked the clipping up and read it. It was from a Kansas City morning paper, and stated that the police of Chicago were looking for a Miss Sadie Wright, a beautiful girl of twenty four, who was suspected of having shot and seriously wounded a railroad employee at a depot in Chicago.

It was intimated that there was some mystery connected with the affair. Railroad officials had been reticent about the occurrence. The wounded man would say nothing beyond the bare statement that Sadie Wright had shot him; he would not tell why the shooting had occurred.

Federal officials had talked to him, though the police did not know why, as it was not a Federal case, and the officials would not tell the gist of their conversation. The article closed with the statement that though the Federal officers had intimated that there was to be no pursuit of Sadie Wright, the Chicago police had declared that no woman could shoot a man and escape unpunished, and were determined to catch the girl if possible

"It looks like an ordinary case to me," I said. "Jealousy, I suppose—another woman in the case. Perhaps the man she shot is connected with the Federal secret service, or something like that, and his superiors wanted to learn whether he was wounded while on duty. He probably told them it was a personal affair, handed over to them the case he was working on, and let it go at that. Of course the Federal men wouldn't give the police the details."

"Yes—it looks like an ordinary case," admitted the man with the scar, "but I don't believe it is."

"No?" I said.

"Do you know Sadie Wright?" he asked

"I never heard of the young lady before," I answered.

"I thought possibly you knew her," he said.

"How should I know every criminally inclined young woman in the country?" I demanded.

"I just thought that perhaps you knew her, or had heard of her," he replied.

"Most peculiar that you should think so," I responded. "I believe it is your deal."

He started to deal the cards. "Do you know," he said, "according to the time the crime was committed, the woman might have escaped on this very train. She might be on this train now!"

"Nonsense!" I exclaimed. "Don't you suppose the police had every train watched and searched?"

"Yes; but some criminals are very clever, especially the women."

"Granted; but there are a number of trains leaving Chicago every day, of which this is only one," I said. "And in making an escape she would probably have taken a less conspicuous train than this limited."

"You never can tell," he said.

"However, I am not much interested in the case," I said. "It takes more than a jealous woman and a wounded man to engage my interest."

His eyes met mine, and he smiled again—that peculiar smile which said nothing, yet seemed to intimate so much. Then he went on dealing the cards, picked up his hand, and waited for me.

When it came time for me to deal, I noticed the clipping still upon the table as I began picking up the cards. "Here is your newspaper story," I said, handing it to him.

He waved his hand for me to retain it.

"But I have no use for it," I protested.

"Keep it," he said. "Show it to the young lady in the drawing-room. Ask her whether she knows Sadie Wright, and what she thinks of this case!"

(To be continued.)

ROMANCE IN A SIDE-DOOR PULLMAN.

When Johnny Went Marching Home He Was Unwillingly Followed By His Fair Charmer in a Box Car.

WHEN it comes to stories of romance, Chicago has us at a standstill. We would not dare to tell the tales that they tell in Chicago without first stating their place of birth. Nobody would believe us, but Chicago's reputation for truthfulness is such that they dare tell anything.

To plunge into the romantic details, John Hanson and Olga Paulsen have been married, and through the instrumentality of a convenient but uncomfortable freight-car and an obliging railroad

The romance of it is thus: John went to Chicago one day last spring, from his home at New Ulm, Minnesota. Being of an inquiring turn of mind, John, we learn, was "gazing at things."

His gaze was brought to his more immediate vicinity when John accidentally collided with a fair maid who happened to be turning a corner. John apologized and tried to back away.

Too late! Cupid had practised on him one of his deftest tricks. He had not shot him; he had hooked him. In short, John was attached by his watch-chain to the lady's delicate lace jacket, of the type which, as it serves no other obvious purpose, it may be surmised Cupid invented for such an occasion.

John is a hard-working stockman and farmer, and his fingers are none of the cleverest when it comes to unwinding himself from ladies' lace jackets. John blushed and looked appealingly into the lady's eyes for aid.

She blushed and smiled and fumbled with the watch chain also. Their fingers met! John blushed some more.

John knows when he is lassooed. He doesn't have to be hog tied and skewered. Next day he hung around the corner for hours. His divinity did not appear. Next day he did the same, and the next, and then several more. In vain!

John went back to his farm, but his accustomed industry had given way to dreaming. In every head of cattle he saw nothing but the face of his unknown beloved. Perhaps that is the reason he decided to buy a car-load of fat cattle.

Anyhow, he telephoned to the station-agent to have a car switched onto his siding, having thought of a better use for the cattle. He would take them to Chicago for sale, and he would hang around the streets of that burg until his courage and endurance should be rewarded by a sight of his dream-maiden

But John didn't go to Chicago. He went down to his siding to see about getting his cattle into the box car. From the car came groans—hollow groans.

John gathered his courage in his hands and decided to release the hollow groaner. Some obliging trainman, or switchman, or vice-president, had sealed the empty car; for we are informed that John broke the lead seal and forced open the door.

Then, behold! Into his waiting arms staggered the beauty of his moonings, the maid of his heart, directed by a providential railroad to her farmer boy at New Ulm, Minnesota. It was so romantic that they were married almost before she could be restored from her faint.

She had got into a box car at Mayfair, near Chicago, in a game of hide and seek, and before she knew it somebody had come along and fastened the door and yanked the empty box car out to New Ulm. And now they are married and living at New Ulm; and we are longing for the simple faith of our childhood that we might believe all these things even as they are written. Selah!

Men Who Have Made Travel Safe.

BY C. F. CARTER.

WHO travels with comfort travels in safety. That is the teaching of history. From the days of the ox-cart ease and security have gone side by side, and whatever invention, device, or process advanced the one ministered to the other also. There is an excellent reason why this should be peculiarly true of railroad travel.

The heavier the car, and the more solid its frame, the greater the ease of the traveler, and likewise the greater his security against danger of—or from—accident. All of which leads to the obvious conclusion that George M. Pullman, the man who introduced more and greater improvements in the passenger-cars of this country than any one else, also contributed largely to make travel safe.

No. 3.—PULLMAN, THE GOOD ANGEL OF THE PALACE-CAR.

He Found the Sleeping-Car a Chamber of Torture, and Left It the Abode of Luxury and a Perpetual Blessing to the Weary Traveler.

DISCONTENTED persons usually find themselves unpopular. Considering the value of discontent as an incentive to progress this seems unjust. It is a consolation, therefore, to find a man who, through a studied policy of dissatisfaction with his own best efforts, as well as with those of his employees, was able to play a conspicuous part in the evolution of comfort and safety in traveling.

George Mortimer Pullman never built a sleeping-car quite good enough to suit himself. To quote his own words:

"My object has always been to make something better than has been made before, and let money-making follow in due time."

Gratitude alone should have made Pullman discontented for life. For if he had not been so excessively dissatisfied with his berth in an old-style sleeping-car, one historic night in 1859, that he got up and fled to a coach to rub his aching bones and cherish unkind thoughts about the builder of that sleeping-car, the inspiration which led to the Pullman palace sleeping-car would never have come to him.

He could never have amassed a private fortune of fifty million dollars, his name would never have become a household word, and many hundreds of travel-

ers would have met untimely deaths who, through Pullman's instrumentality, have been preserved unharmed.

If Pullman had been able to sleep comfortably in his berth that night, he would probably have returned to Chicago to live out an obscure life. The man who built that bone-breaking atrocity which passed for a sleeping-car in 1859 deserves to be canonized for the result he unwittingly achieved.

GEORGE M. PULLMAN.

THE MAN WHO SLEPT SO BADLY IN AN OLD-STYLE SLEEPING-CAR THAT HE DETERMINED TO BUILD A BETTER ONE

Still, it will not do to ascribe to the man who tortured Pullman all the merit for bringing about the modern sleeping-car. Pullman possessed some extraordinary traits of character himself, in addition to his settled policy of dissatisfaction. No ordinary man could have achieved what he did.

The best evidence of this is the fact that a whole nation, ordinary men included, had the same opportunity that Pullman had to make the sleeping-car the most famous institution known to travelers. The first sleeping car was run on the Cumberland Valley Railroad, between Harrisburg and Chambersburg, Pennsylvania, in 1836, when Pullman was five years old.

The chance remained open to any one who cared to take it, for the sleeping-car was never patented. All the time young Pullman was fighting for a foothold in an inhospitable world as clerk in a country store in western New York at forty dollars a year, and afterward as an apprentice to his brother, who was a cabinet maker at Albion, New York

Pullman's opportunity came to him at last, but it was something much more prosaic than the creation of palaces on wheels. The Erie Canal was to be widened, and there were some brick houses in the way.

The owners did not like the idea of tearing them down, but there seemed no alternative. No one had ever heard of moving a brick house.

But young Pullman thought it could be done. A bargain was made with one of the house-owners, and the job of moving was done so neatly that not a crack was to be found in the walls. After the first success, all the other owners of brick houses that were in the way were eager to hire Pullman to do the work.

While he was finishing the last job, William Matteson, of Chicago, came back to "York State" to see the folks. He heard about Pullman's wonderful achievements in moving brick houses. Matteson examined the buildings, saw where they had been moved from, and then went to Pullman and told him that there was a fortune waiting for him in Chicago if he could do that sort of thing on a large scale.

Chicago was built in a swamp. When the town began to grow, its citizens realized that the only possible way to build a city there was to fill up the swamp and make dry ground. To do this the houses must be torn down, or else lifted up into the air about three feet

There were a number of good-sized brick blocks to be raised or destroyed, and no one in Chicago had the ingenuity or the enterprise to attempt to raise them.

Pullman hurried to Chicago and contrived to get the contract for raising the Madison Block, the largest brick building in town. He procured six hundred jack-screws, placed them in position under the

building, and instructed the men at the screws to give a quarter turn at the sound of a pistol-shot.

After the first quarter turn the building was carefully inspected. Being found all right, there was another shot and another quarter turn.

The process was repeated until the block was finally placed in position three feet above its original foundation without a tenant being disturbed or business interrupted. After that Pullman did a rushing business until all the brick houses in Chicago were raised to grade.

Taught by His Sufferings.

It was while on his way from Buffalo to his old home at Westport, New York, with twenty thousand dollars in his pocket that he had cleared up on his house-raising contracts that Pullman attempted that memorable sleeping-car ride.

During all these years the opportunity to make fame and fortune by producing a comfortable sleeping-car had been open to the world. Certainly the need for such a car was pressing. A journey of four hundred miles in those days occupied as much time as a journey of twice that distance now.

The iron rails were light and, consequently, the roads were excessively rough. The cars, known as "cribs," "hyenas," and "rattlers," were nothing less than torture chambers. They were narrow, the ceilings were low, they were unventilated, badly lighted and heated, and the springs were far from perfect.

Several railroads were using so-called sleeping-cars. These were simply the "rattlers," crude and rough as they were, fitted up with three tiers of shelves. With three tiers of bunks in those low cars, the passenger had to spread himself out pretty thin to get in at all.

However, there was no superfluous bedding to take up precious space. The only thing in that line was a mattress and pillow. The mattresses were piled up in the end of the car and were dragged through the aisle to the scene of torture when required.

To a man with youth, health, energy, ambition, and twenty thousand dollars, all things are possible. Pullman returned to Chicago and with Benjamin Field, of New York, arranged to operate sleeping-cars on the Chicago and Alton and the Galena and Chicago Union railroads.

But for this one time in his career Pullman did a thing first and thought about it afterward. He undertook a series of experiments without a clear idea of the end to be gained. The experiments were so unsatisfactory that he gave them up and went to Colorado, attracted by the Pike's Peak gold excitement.

He found no gold, but he found an opportunity to think over the sleeping-car idea more fully. Finally, he came to the conclusion that if he were to build a car, not merely comfortable and complete in accommodations, but handsome and suitable for occupancy both by night and by day, night travel would become popular with all classes, and the business might grow to vast proportions. This time he formulated his plans fully before he made a move.

Once his mind was made up, Pullman returned to Chicago and again made an arrangement with the Chicago and Alton to run sleeping-cars. The Chicago and Alton was then in desperate straits.

The sheriff made frequent calls to attach the receipts, and the management was ready to clutch at any straw or enter into any agreement that held out any hope of relief, however shadowy. The management even gave Pullman the use of a shed in which to build his first sleeping-car.

Supported by No One.

Pullman's first sleeping-car worried other people more than it did himself while it was building. His friends gave proof of their fidelity by protesting long and earnestly against his folly.

Railroad men reasoned with him and explained the many things which made it impossible for him to succeed in his venture. Pullman was a nice fellow, and they hated to see him lose his money.

Even the workmen who were hired to build the car felt sorry for their employer's inexperience and lack of business judgment and ignorance of cabinet making and all the other handicrafts called into requisition. Whenever he wanted a certain thing done in a certain way,

IF GEORGE PULLMAN HAD NOT PASSED A NIGHT OF HORROR IN AN OLD-STYLE SLEEPING-CAR, IT IS DOUBTFUL IF THE FIRST PULLMAN WOULD EVER HAVE BEEN BUILT.

there were always innumerable reasons why it couldn't be done.

But Pullman was so obstinate that he insisted on having his own way, in spite of well-meaning friends and railroad men who understood the transportation business down to the ground, kindly disposed workmen who knew better than he did himself what he wanted, and the intelligent public that always knows everything. As a crowning act of folly, he employed a famous artist, who had just finished decorating Samuel J. Tilden's house, to come to Chicago and decorate his first car.

At last, after several months of toil, the first Pullman palace sleeping-car was finished. When it was drawn out on a side-track for inspection, the results of the builder's obstinacy were strikingly apparent.

The "Pioneer," as it had been named, was a foot wider and two and a half feet higher than any car that had ever been built. One of Pullman's railroad friends pointed out that the car could not be run on any railroad then in existence because it was so big that it would not clear the station platforms and bridges.

"I know it," said Pullman. "I suppose you'll have to cut down the platforms and rebuild the bridges."

And that was precisely what happened. Since Pullman would not build his cars to fit the railroads, the railroads had to be built to fit Pullman's cars. Next they had to improve all their passenger equipment to fit the standard set by him.

When enough track had been found on which to make a trip, Pullman invited a judicious selection of influential men, editors of papers with the best circulations, and railroad officials who would be most useful, to come and see his car and take a ride on it.

The guests found a car so very different from anything the world had ever seen that they were filled with wonder

and delight. The Pioneer was not only of enormous size, but it rested on eight-wheeled trucks instead of four-wheeled, had a raised deck with ventilating transoms, and was a beautiful example of cabinet-making and decorative art.

All were willing to believe that the Pioneer had cost eighteen thousand dollars. The best passenger cars of that period cost four thousand dollars.

HE PROCURED SIX HUNDRED JACK-SCREWS, PLACED THEM IN POSITION UNDER THE BUILDING, AND INSTRUCTED THE MEN TO GIVE A QUARTER TURN AT THE SOUND OF A PISTOL-SHOT.

First Passengers on a Pullman.

One thing that puzzled the guests was the lack of anything that looked like sleeping accommodations. They had understood that they had been invited to inspect a sleeping-car. But where were the passengers to sleep?

Pullman smiled, and guessed they had better have something to eat before they talked about sleeping. At a word from him the first sleeping car porters brought out little tables, which fitted between the seats, just as do the tables in use in Pullman cars to-day, and furnished them with linen, silver, and china. The delighted guests ate the first meal ever served on a moving train.

After the cigars, Pullman requested all hands to step forward into a day-coach for a few moments. When they were called back a short time later, they found that a complete transformation had been made. The seats and tables had disappeared, and in their places inviting looking beds, completely furnished with fine linen and blankets, could be seen through neatly parted curtains.

This sleeping-car bore no resemblance to the barren torture chambers they had known before. Again there was a round of applause. Then the guests undressed and went to bed.

Half an hour later all rose and dressed and watched with keen interest while the porters transformed the sleeper back into a day-car. The rest of the trip was spent in discussing the marvel and in examining its details over and over again.

The Pioneer caused a tremendous sensation. All the papers and magazines published descriptions of it. Everybody was talking about Pullman's sleeping-car.

All agreed that traveling in such cars would be delightful, but the verdict was equally unanimous that they were a commercial impossibility. Why, men would go to bed with their muddy boots on; they would expectorate on the carpets and upholstery; they would mar the beautifully finished cabinet work, and—oh, well, it couldn't be done.

Railroad men and personal friends redoubled their efforts to dissuade Pullman from inviting ruin. To all these objections Pullman made one comprehensive answer, which he had occasion to repeat many times in the course of his life:

Culture in Sleeping-Cars.

"I have always held that people are very greatly influenced by physical surroundings. Take the roughest man, a man whose lines have always brought him into the coarsest and poorest surroundings, and bring him into a room elegantly carpeted and furnished, and the effect on his bearing is pronounced and immediate.

"I am not at all afraid people will go to bed with their boots on. I am convinced that if I devote all my energies to providing handsome cars the financial returns will take care of themselves."

Soon after the Pioneer was completed, it was used in the Lincoln funeral train. This necessitated cutting down the station platforms between Chicago and Springfield. A few months later the car was wanted to convey General Grant from Detroit to Chicago, so the Michigan Central stations and bridges were hastily adjusted to the standard fixed by Pullman.

Once the road was adapted to them the Michigan Central was ready to try Pullman cars. In pursuance of his lifelong policy, Pullman set out to make a great improvement in the new cars. When the second Pullman car was completed it had cost twenty-four thousand dollars.

The first Pullman cars for the Michigan Central settled a question which has been a perennial source of worry to legislators; namely, the proper charge for a berth. Unfortunately, the legislators keep forgetting it and trying to settle it all over again.

It was impossible to sell a berth in a car that had cost twenty-four thousand dollars for a dollar and a half, which was the rate in the Woodruff sleeping-cars then used on the Michigan Central. But when Pullman announced that he proposed to charge two dollars a berth President Joy was horrified.

"My dear sir," he exclaimed, "that is not to be thought of. If you undertake to charge two dollars a berth when other roads only charge a dollar and a half between Detroit and Chicago, you will simply drive all the night travel to our competitors. It is no concern of mine that you have chosen to spend so much money for useless luxuries for people who will not appreciate them and do not want them."

"People are willing to pay for the best, if they get the worth of their money," returned Pullman. "But what is the use of spending time in useless argument over a subject which is so easily susceptible of demonstration? Run your cheap cars as usual at a dollar and a half a berth and put my cars on the same train at two dollars a berth, and let the public choose between them.

"If the traveling public thinks the beauty of finish, the comfort, and the safety of the new cars worth two dollars a night, there are the twenty-four-thousand-dollar cars; if, on the other hand, they are satisfied with the less attractive surroundings at a saving of fifty cents, the cheaper cars are at their disposal. We will submit the plain facts on both sides of the issue without argument."

This was such a practical suggestion that it was adopted without parley. Not only did the patrons of the road utterly refuse to look at the old cars so long as any two dollar berths were available, but those who were crowded out of the Pullman complained so loudly and so bitterly at being compelled to put up with dollar-and-a-half berths, that within six weeks the cheap cars were taken off altogether.

Instead of driving traffic away, the more expensive palace-cars drew travel from the other roads, so that competing lines were forced to make terms with

THE MATTRESSES WERE PILED IN THE END OF THE CAR, AND WERE DRAGGED THROUGH THE AISLE TO THE SCENE OF TORTURE WHEN REQUIRED.

Pullman. Instead of a leveling down to the cheaper prices, there was a leveling up to the higher.

A Campaign of Education.

Thus vindicated, Pullman went back to his shops and arranged to build some better cars. Though the sleeping car as a whole could not be patented, a great many devices suggested in its development could be, and these gave some advantage over would be competitors. The chief advantage, however, was in Pullman himself.

Quiet, courteous, well dressed, invariably good-humored, and an entertaining talker, he also possessed the faculty of making others talk. Being absolutely sure of himself, he was able to bring others to his way of thinking.

All his resources were taxed to the utmost, for the opposition to his cars was remarkable. He not only had to overcome opposition to the use of Pullman cars on any terms, but he had also to convert railroad managers to the superiority of the Pullman system of operation, with its uniform standard of management and service. They could not at first grasp the merits of Pullman's idea of long runs.

The Pullman Company was formed in 1867. Then the founder was more at liberty to use his talent for diplomacy in extending his business. For years he practically lived on the railroads, going from place to place, in one of his own cars, interviewing railroad managers.

The chronic dissatisfaction with all that had gone before, which preserved the Pullman prestige, was made a matter of contract. In all the early contracts with railroads a margin was provided to devote to efforts toward constant betterment.

When the Union Pacific and Central Pacific were opened, through trains, equipped with Pullman cars, made the run between Omaha and San Francisco. This was a practical demonstration of the convenience of the Pullman system of operation that was convincing.

Soon after the Pullman Company was organized, in 1867, parlor-cars were introduced on day runs. Then in the same year the first hotel car, the "President," a sleeping-car with kitchen and pantry, a buffet car it would be called now, was introduced on the Great Western Railway, of Canada.

It was the first car in the world built to serve meals *en route*. In 1868 the first regular dining-car, the "Delmonico," was placed in service on the Chicago and Alton.

The Pullman idea was not based on beauty of surroundings and comfort alone, but also on safety. The "Pioneer," and every Pullman car that followed it, were so much heavier and stronger than the ordinary coaches in the train that in case of accident they almost always escaped injury.

Pullman wanted something better than a strongly built car; he wanted a solid train. In 1886 he began working on a scheme for continuous trains. As early as 1852 patents had been granted for canvas diaphragms between cars.

They were adopted on the Naugatuck Railroad, in Connecticut, in 1857, but were discontinued after four years. They were flimsy and practically useless, for they did not attempt to hold the cars in position, but were merely intended to keep passengers from falling off in passing from one platform to another while the train was in motion.

In 1887 the modern vestibule was patented. By means of this an entire train was made into one solid, yet sinuous, whole by elastic diaphragms faced with heavy steel frames, held in place by strong springs. The wide vestibule made it possible for the passenger to go from his sitting-room to his dining-room or his bedroom under one roof, just as he would in his own home.

Vestibuled trains required less power to pull them, because the air-pockets between the cars were reduced to a minimum. They also reduced the danger from collisions almost to the vanishing point.

Several vestibuled trains have collided at a speed of forty miles an hour without injury to passengers. No safety appliance, with the possible exception of the

AS A CROWNING ACT OF FOLLY, HE EMPLOYED A FAMOUS ARTIST TO COME TO CHICAGO AND DECORATE HIS FIRST CAR.

air-brake, has yet been devised which has proved more valuable for the protection of travelers than this apparently simple device.

An exhibition vestibuled train made the rounds of the principal cities in 1887,

SINCE PULLMAN WOULD NOT BUILD HIS CARS TO FIT THE RAILROADS, THE RAILROADS HAD TO BE BUILT TO FIT PULLMAN'S CARS.

and the [illegible] was placed in service on the Pennsylvania road. The result was an increase of seventy per cent in travel on the limited trains.

Building a Town of Beauty.

Pullman's abiding faith in the commercial value of beauty was manifested in everything he undertook. In 1879, the business of the Pullman Company had increased so rapidly that the shops at St. Louis, Detroit, Elmira, and Wilmington could not turn out cars fast enough.

So a tract of three thousand five hundred acres on Lake Calumet, fourteen miles from Chicago, was purchased, and W. W. Beman, a noted landscape architect, was engaged to lay out an ideal manufacturing town.

As the work grew, Beman's enthusiasm grew with it. He resolved to make the planning of the town the greatest effort of his life, and he succeeded in laying out the most beautiful town that had ever been built on American soil.

He felt that he deserved to have his name perpetuated in the town. With becoming modesty he mentioned his ambition to Pullman. The genius of transportation looked sober.

"The fact is, I had thought of naming the town after myself," said he. Then seeing the keen disappointment shadowed in the architect's face, he continued:

"But, I'll tell you what we can do, Mr. Beman. We can make up a compromise name that will give us both recognition.

We can take the first syllable of my name and the last syllable of your name to christen the town."

When the town of Pullman was finished, at a cost of eight million dollars, the surroundings were not only ideally beautiful, but the sanitary engineering was also ideal. All the inhabitants had an abundance of pure air and light and water, and the sewage-disposal system served as a model for the world for years.

Many volumes of ponderous discussion were devoted to Pullman's great philanthropic town. The general public resolutely refused to see that the town of Pullman was no more a work of philanthropy than a sleeping-car. It was merely an application of Pullman's guiding principle that, if he devoted all his time and talent to the creation of something beautiful, the profits would take care of themselves.

He believed that by creating an exceptionally attractive place in which to work and live he would be able to secure the superior class of men he needed, that they would be more contented and do more and better work, while the town would be self-supporting. He kept the streets sprinkled and the lawns neatly trimmed, not from philanthropic or sentimental motives, but simply because that was cheaper than paint to keep the houses in condition.

When Pullman died in 1897, at the age of sixty-six, the wisdom of all his policies regarding the character of equipment and the system of operation and of manufacture had been demonstrated by the complete success of the most remarkable transportation organization known to travelers. With few minor exceptions, his cars were in operation on every railroad on the continent. One line of cars ran through from Washington to San Francisco.

The business he founded continues to grow. In the year ending June 30, 1905, 14,969,219 passengers were carried, Pullman cars were in operation on 184,147 miles of railroad in the United States, the value of the products manufactured at the car works was $16,512,387, and the total number of employees was 18,901.

After Pullman, Westinghouse! We don't mean by this that one is greater or more useful than the other. On the contrary, their work must be thought of in conjunction. Half the value of the Pullman as a safe and comfortable means of travel would be lost without the air-brake, that little giant of railroading, which has made possible higher speed and at the same time reduced the liability to accident. Therefore the next article in this series will describe the work of George H. Westinghouse, the inventor of the air-brake.

BEAUTY AND RAPID TRANSIT.

How Brooklyn Is Leading the Way In the Floral Decoration of Metropolitan Railroad Property.

THE Brooklyn Rapid Transit Company is very much to the fore in one important direction, that of rendering railroad property attractive to the eye. As most of the stations of the company are not amenable to horticultural decoration, because of the peculiarities of elevated service, attention has been turned to the various workshops and inspection plants.

Thus, the company's shops present a most unusual appearance. Instead of the grimy squalor of scrap-heaps or dust-heaps, or even prim, well-swept tidiness, there is actual beauty. The unused spaces are taken up with skilfully planted beds set in artistic designs. The name of the division is picked out in border plants, and "Old Glory" waves its bright colors over a raised bed whose colors are not less bright

Perhaps an anchor stands out in scarlet glory, or the company's initials bloom modestly in purple, after the manner of violets and companies' initials. The effect is more than pleasing to the eye. It is a pleasant sign of the advancing culture and love of beauty that are more and more plainly creeping even into the commercial side of our national life.

Riding the Rail from Coast to Coast.

THAT'S what Gilson Willets is doing for THE RAILROAD MAN'S MAGAZINE. It is his third annual tour in our behalf, and in the March number we shall set out in pursuit of him. The trip begins with Boston. For the first time we shall take up the railroads centering in the Hub and tell the tales of romance and adventure, of tragedy that was near-comedy and comedy that skirted the edge of the tragic, which the railroaders of the New England metropolis told Mr. Willets.

That will be number one. After that will come stories told by the railroad men of the roads around the Great Lakes, of the yards of St. Paul, the trainmen and engine-men of the Northern Pacific, the railroaders in Butte, the builders of the Pacific extension of the St. Paul, the men who ride the trains and walk the track of the Oregon Short Line, the keepers of the railroad gates by the Great Salt Lake, and so on to the Pacific at Los Angeles. Then we shall swing back to the East over the Southern Pacific, lingering a while in Texas and Oklahoma to tell the story of two States that the railroad has made.

This is the third tour, and it is also the best. The farther Mr. Willets goes the richer becomes the vein of stories opened to him, and the more do the railroad men of the country welcome him and give him their cordial aid in developing the bonanza of anecdote which he is working. So, whether you are along his line of march or are forced to watch him from afar, we can only repeat the advice which we have given you before:

WATCH FOR WILLETS!

PERKINS AND THE CONTRACT.

BY EDGAR WELTON COOLEY.

Illustrating the Danger of Sleeping on the Train and Other Forms of Sleepiness.

MR. PETER PERKINS had not intended to go to sleep. He had heard the brakeman call the name of the next station. He knew it was Granger Center, and Granger Center was his destination. Furthermore, he had seen the brakeman take his train-check, and had understood perfectly when that personage told him that the next stop was Granger Center.

But Mr. Perkins had not retired until a late hour the night before, and he had arisen at an early hour that morning. He was delightfully comfortable in the high-back seat, the motion of the train seemed to accentuate his drowsiness, and, unconsciously, his eyes closed, his head fell back upon the cushion, his mouth opened, and he slept.

Presently the locomotive whistled for the station, the train slowed up and stopped, many passengers disembarked, others got aboard, and the train started. It rattled over the switches and through the yards, and passed beyond the limits of the town and into the country; still, Mr. Perkins slumbered peacefully

The seat he occupied was the last one in the rear coach, and the train had run probably two miles when the conductor touched him on the shoulder. Mr. Perkins opened his eyes with a start and looked at the conductor. The conductor waited a moment in respectful but expectant silence, and then he asked for Mr. Perkins's ticket.

That gentleman eyed the conductor haughtily. "I gave you my ticket," he said. "I gave it to you two or three hours ago."

"I beg your pardon," replied the conductor, "but where are you going?"

Mr. Perkins glared chillingly at the conductor, and his bosom swelled with growing indignation. To Mr. Perkins, every railroad man, and especially every conductor and every agent, was the embodiment of overbearing insolence and incivility, and he prided himself upon possessing spirit and independence sufficient to make even a railroader respect his rights.

"As it is manifestly your place to know," he said witheringly, "I am going to Granger Center."

"In which event," returned the conductor pleasantly, "why did you not get off at Granger Center?"

"Why did I not do what?" asked Mr. Perkins imperiously. "How can I get off at Granger Center until we reach Granger Center?"

"But," said the conductor quietly, as though not wishing to create a scene or to occasion needless alarm, "we have just left Granger Center. The next station is Highland."

"What?" cried Mr. Perkins, jumping excitedly to his feet and grabbing his grip from the seat beside him. "You say we have passed Granger Center?"

Mr. Perkins had started for the rear door of the coach, but impressed probably by the wild look that had suddenly come into his eyes, the conductor blocked his pathway.

"Wait!" he said authoritatively. "You must not attempt to jump off a train when it is running as fast as this is. You should never attempt to get off any moving train. Excited people always get hurt."

"I am not excited," roared the irate passenger, standing in the middle of the floor and breathing heavily, "but even if I were, I have good reason to be. I have very important business to attend to at Granger Center. I must be there immediately. It means thousands of dollars to my company. Why don't you do something? Why don't you stop the train?"

"Because," replied the conductor calmly, "I thought you would rather not get off here. If it will be any accommodation, I shall be glad to take you to Highland, but if you insist—"

"I do insist," yelled Mr. Perkins, very red of face. "You should have seen that I got off at Granger Center. You had no business to carry me by. I now ask—I demand, sir—that you stop the train and let me off."

"Certainly, certainly," replied the conductor good-humoredly, pulling the bell-cord. "I shall be very glad to, if you insist—"

But Mr. Perkins did not tarry to argue matters. As the train's speed diminished, he hurried into the vestibule and opened the rear door, but immediately closed it again. It was raining—a heavy, driving rain!

"Oh!" he gasped. "I can't get off here. I have no umbrella or raincoat or rubbers. You don't—you certainly can't expect me to get off here, in this rain?"

"Certainly not," returned the conductor. "I didn't think you wanted to. I believe I said as much."

"But I didn't know it was raining," snapped Mr. Perkins. "Why didn't you tell me it was raining?"

"I thought you knew," replied the conductor. "I thought you could see for yourself. I thought you weren't excited."

Mr. Perkins sank heavily into his seat and dropped his grip upon the floor.

"It's an outrage," he complained in a loud voice, "that a man can't indulge in a nap without being carried past his station. There ought to be a law—"

"Yes," agreed the conductor sympathetically, "there ought to be, but there isn't. There aren't enough laws relating to railroads. There ought to be a few hundred more. There ought to be a law requiring the conductor to lead the passengers gently but firmly out of the cars and deposit them on the station-platform."

"Nonsense!" roared Mr. Perkins wrathfully. "Nobody asks you to do that. Nobody expects you to do that; but there ought to be a law compelling the conductor or the brakeman or somebody to go through the cars before the train starts and see that nobody is carried by."

"Yes," said the conductor again, "there ought."

Mr. Perkins glared at the conductor a moment in impotent rage.

"But what am I to do?" he demanded. "I've got to get to Granger Center as quickly as possible. The county trustees are going to award the contract for several steel bridges, and I want to bid on 'em."

"Well," replied the conductor encouragingly, "Number Three will come west through Highland in two hours, but if you can't wait for that, perhaps you can get a covered rig. It's only seven miles."

Five minutes later, Mr. Peter Perkins, angry and very much disgusted, stepped off the train and hurried into the waiting-room at Highland.

"Is there," he asked, thrusting his florid face through the ticket-window and addressing the agent, who was busy making out some way-bills—"is there a livery-stable here?"

"Well," replied the agent without looking up from his work, "there's a kind of a one."

"A kind of a one?" said Mr. Perkins doubtfully. "What kind of a one?"

"They've got two or three rigs," said the agent, pausing to dip his pen in the ink; "I don't think they've got over two or three."

"Oh," replied Mr. Perkins, "I think that will be quite sufficient. In fact, I am very much in hopes that I shall not need more than one."

To this sarcastic rejoinder the agent made no reply, but bent over his desk. Mr. Perkins walked to the door and looked, through the drizzling rain, up the one business street of the village. Presently he returned to the window.

"Where," he demanded with an air of authority, "can I find that livery-stable?"

"I AM NOT EXCITED, ROARED THE STATE LEGISLATOR, STANDING IN THE MIDDLE OF THE FLOOR AND BREATHING HEAVILY. "BUT EVEN AS WE [illegible] I HAVE [illegible] BEAUTY [illegible] BE

He hoped that the agent would turn his head and look at him, for he was quite desirous of impressing the agent with the importance of his personality; but the agent did not turn. He only answered:

"Four blocks north and three blocks east."

For a few seconds Mr. Perkins regarded the agent's back in silence, then he walked to the door again. The rain was falling steadily, and there were no indications of its ceasing. He glanced uneasily at his watch. It was four minutes past two o'clock. The trustees of Granger County were to meet at three, and there were seven miles of muddy roads between him and Granger Center!

"See here," he cried impatiently, again addressing the agent through the arched

wicket, "your blamed old road has got me into trouble, and you've got to help me out."

"Got you into trouble, eh?" replied the agent, turning about in his chair. "However did it happen?"

"Carried me past Granger Center," vociferated Mr. Peter Perkins, very much aggrieved, "and I have an important business engagement there! I ought to be there this very minute. I've got to get back there somehow; but how can I, in this rain?"

"The next train," began the agent cheerfully, "is Number Three, due—"

"I know all about Number Three," broke in Mr. Perkins; "but I can't hang around here two hours waiting for a train. I've got to be there by three o'clock, I tell you."

"Well, then," replied the agent thoughtfully, "if you can't wait for Number Three, and don't want to walk, you had better drive."

"Of course I had better drive," snapped Mr. Perkins; "but I've got to have something to drive, haven't I? And I can't walk the seven blocks to that livery-stable through this rain, can I? You'll have to telephone for me. You'll have to telephone to 'em to send a rig and a driver down to the depot."

For a moment the agent regarded Mr. Perkins resentfully. He was not pleased at the manner in which that gentleman issued his commands; but the perspiring agitation of his countenance appealed to the agent's sense of humor, and he got up from his desk and went to the telephone.

"Well," burst forth Mr. Perkins impatiently, when the agent hung up the receiver, "what did he say?"

"It was a boy," replied the agent, "and he said he would go home and ask his dad."

"Go home and ask his dad?" exclaimed Mr. Perkins. "Where does he live, and what does he want to ask him?"

"He lives about half a mile from the stable," replied the agent calmly, "and the boy wants to ask him if he can let you have a rig."

Mr. Perkins glanced at his watch, then he went to the door and looked at the rain, then he fell to pacing the floor nervously. After several minutes he paused at the ticket-window and glared at the agent. The agent was busily writing, so Mr. Perkins glanced at his watch again and resumed his pacing.

Presently the telephone-bell rang, and Mr. Perkins hurried to the ticket-window again. He was anxious to learn about the rig.

"The boy says," the agent informed him, after a moment's conversation over the wire, "that you can have a rig, but he wants to know how soon you want it."

"Tell him I want it immediately," shouted Mr. Perkins. "Tell him I can't wait more than two minutes for it."

The information thus imparted by Mr. Perkins was promptly forwarded by the agent to the listening boy, while Mr. Perkins waited anxiously, his watch in his hand.

"He can't let you have a rig immediately," said the agent presently, turning to Mr. Perkins. "You see, the most prominent man in the county is dead, and every livery-rig for miles around is engaged for the funeral."

"Well, this is a pretty mess!" ejaculated Mr. Perkins, turning to pace the floor again. A moment later he paused to glare through the ticket-window at the agent, who had resumed his work.

"It's a pretty mess!" he repeated, snapping his watch shut and dropping it into his pocket. "When can he let me have a rig? Why didn't you ask him how *soon* I could get one? What?" Mr. Perkins was whining with vexation.

"I did ask him," replied the agent quietly.

"And what did he say?" demanded Mr. Perkins.

"He said," replied the agent, "that he would go and ask his dad."

"Oh, Lord!" groaned Mr. Peter Perkins. "What a town! What a town!"

He strode to the door and glared savagely at the storm. "Gone to ask his dad, to ask—oh, Lord!"

He turned back into the waiting-room, but had taken only a few steps when he heard a train-whistle, and he hurried hopefully to the door again. His hopefulness, however, was of short duration, for the train was a stock extra, east bound from Granger Center. He watched it while it thundered past the station, then he heard the jingle of the telephone-

bell, and hurried back to the ticket-window.

"The boy says," the agent informed him encouragingly, "that his dad says he can furnish you a rig at four o'clock."

"Tell him to go hang!" snorted Mr. Perkins. "Tell him to tell his dad to go hang! I don't want a rig at four. I want it now! I've got to be in Granger Center at three!"

He paced the floor savagely, finally bringing up at the window again.

"It's a shame!" he declared, pounding the wooden shelf with his fist. "It's an outrage to carry a man past his station, at any time, but it's positively criminal to carry him past when he has an important contract to figure on, and it's raining, and the most prominent resident of the county is dead!"

"Yes," agreed the agent condescendingly, "It is. It's criminal! If I were you, I'd sue the company."

"That's just what I'm going to do," declared Mr. Perkins decidedly "If I fail to get to Granger Center in time to figure on that contract, I'll sue 'em for heavy—"

He paused suddenly as he heard an engine's whistle, and hurried to the door. Another stock extra was speeding eastward. He watched it until it disappeared around a curve; then he glanced at his watch. It was 2.30.

"Heavens!" he groaned dolefully; then, a sudden thought occurring to him, he rushed back to the ticket-window.

"Say," he roared, "is there anybody in this town who has an automobile? Is there anybody here who knows what an automobile is?"

"Yes," replied the agent cheerfully; "Jeff Jorden, the implement-dealer, up the street, has one."

"Good!" exclaimed Mr. Perkins, in whose anxious breast hope leaped afresh. "Will you telephone and ask him if he can take me to Granger Center? Tell him I've got to start in five minutes. Tell him I'll make it worth his while."

The agent telephoned to Mr. Jefferson Jorden, while Mr. Perkins paced the floor restlessly

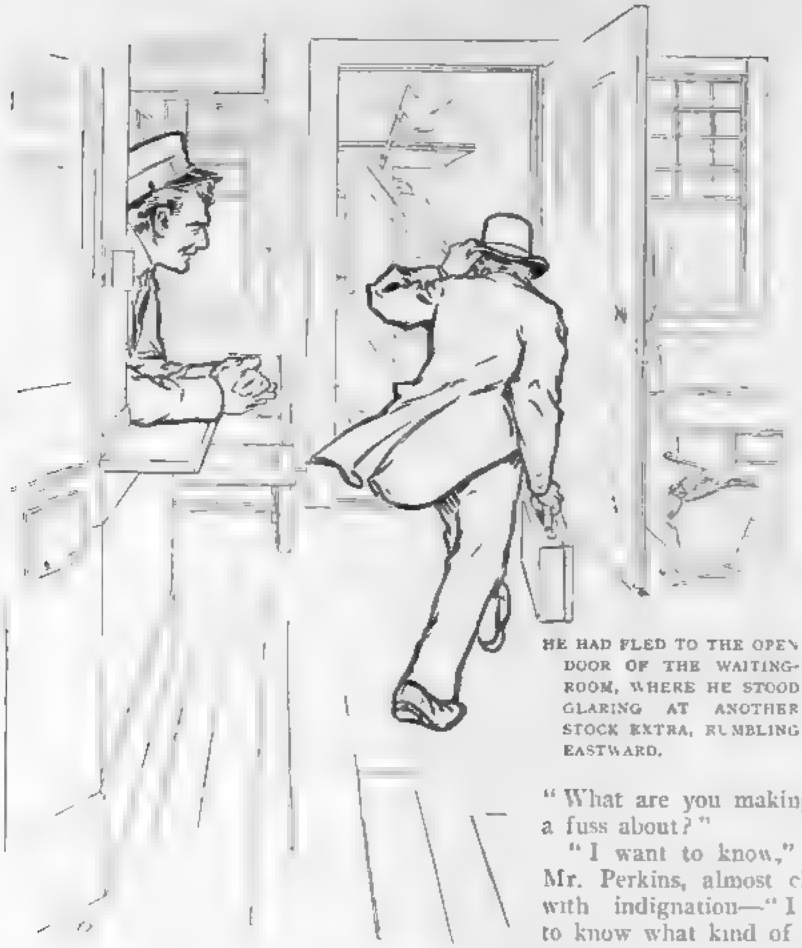
"SEE HERE," HE CRIED IMPATIENTLY, "YOUR BLAMED OLD ROAD HAS GOT ME INTO TROUBLE, AND YOU'VE GOT TO HELP ME OUT"

"Well," he demanded, when the agent hung up the receiver, "what did he say?"

"He said," replied the agent, "that he will be very glad to accommodate you, but that he can't get his machine in shape to start quite that quick."

"Why can't he?" asked Mr. Perkins, glancing anxiously at his watch. "What's the matter with the machine?"

"He burst a tire the other day," replied the agent, "and had to send to



HE HAD FLED TO THE OPEN DOOR OF THE WAITING-ROOM, WHERE HE STOOD GLARING AT ANOTHER STOCK EXTRA, RUMBLING EASTWARD.

Chicago for another; but as soon as it comes—"

Mr. Peter Perkins, however, was no longer lending an attentive ear. He had fled to the open door of the waiting-room, where he stood, gnashing his teeth and glaring at another stock extra, rumbling eastward.

Two minutes later, while the agent at Highland was endeavoring to familiarize himself with the contents of a circular received from the traffic department, he was suddenly startled nearly out of his wits by a series of loud and explosive sounds immediately behind him. He glanced around affrightedly, and beheld the scarlet and agitated face of Mr. Perkins protruding through the ticket-window.

"What's the matter with you?" the agent demanded, fast losing his patience.

"What are you making such a fuss about?"

"I want to know," yelled Mr. Perkins, almost choking with indignation—"I want to know what kind of a rail road you have here. It's the first road I ever saw that runs all its trains in one direction. It ain't built in a circle, is it? What?"

"I hadn't noticed that all the trains ran in one direction," smiled the agent; "but if you say they do, why, of course—"

"They do!" reiterated Mr. Perkins positively. "I've been here for an hour, and I've been trying to get seven miles west of here. Three trains have passed. Do you understand? Three trains! And all of 'em went east. If I had wanted to go east, they'd have all gone west. Wouldn't they?"

"Yes," agreed the agent, "they would."

"They would!" repeated Mr. Perkins. "And that shows how blamed accommodating your blamed road is! First it picks out a day when it's rain-

ing, when every rig in the county is engaged for a funeral, and when the only automobile within twenty miles is waiting for a tire to be shipped from Chicago. Then it carries me past a station where I have an important engagement.

"Then it turns every one of its cussed trains around and runs 'em in the other direction! It's trying to beat me out of that contract, and if it does I'll sue it! I'll sue it for every dollar it's worth!"

"You bet I would," replied the agent soothingly.

"I will!" insisted Mr. Perkins. "But I don't intend to let any old railroad beat me out of that contract. I intend to get it. I'll keep the wires hot between here and Granger Center until I do get it!"

He grabbed a block of telegraph-blanks, wrote a message, and handed it to the agent. The agent read it over carefully. It ran:

GEORGE FRANKLIN, Granger Center
See chairman board of trustees, Granger County, and induce him to withhold bridge contract until I arrive Will be there on Number Three shortly after 4. PETER PERKINS.

Mr. Perkins paid for the telegram and glanced at his watch. It was 2.45 At 2.46 he was pacing from one end of the station-platform to the other. The rain had ceased, and the clouds were breaking away. At 2.55 he was still pacing; but at 2.56 he again appeared at the ticket-window.

"Any telegram for me?" he demanded fiercely.

"No," replied the agent—"not yet!"

Mr. Perkins scowled a moment in silence; then he wrote another message:

GEORGE FRANKLIN, Granger Center.
Have you seen chairman board of trustees? Has contract been awarded? Answer quick.

Ten minutes later, which time he occupied in feverishly pacing the station-platform, Mr. Perkins wrote a third telegram to Mr. Franklin at Granger Center. It was brief, but to the point. It demanded to know why Mr. Franklin did not answer telegrams sent him by Mr. Perkins.

At 3.22, Mr. Perkins paused in his ceaseless pacing of the station-platform and thrust his perspiring face through the ticket-window.

"Any answer *yet?*" he demanded sternly.

"No, sir," replied the agent assuringly. "None yet!"

"You are sure, are you?" Mr. Perkins asked, regarding the agent suspiciously. "You know my name, do you? It's Perkins—Peter Perkins."

"Well," replied the agent cautiously, "you say it is Peter Perkins, and I have no reason to contradict you."

"Very well!" thundered Mr. Perkins. "You know, don't you, that if a contract is lost through the failure or neglect of a telegraph company to deliver a telegram promptly, the company is liable? You are aware of that, aren't you?"

"I'd sue 'em," advised the agent.

"I will sue 'em!" roared Mr. Perkins. "I'll sue 'em for every dollar—" He paused.

The agent had been summoned to his telegraph-table by the ticking of his instrument. Mr. Perkins waited expectantly until the agent had transcribed the message.

"Ah," he said, placing a pair of gold-rimmed glasses upon his nose, "I suppose that is for me?"

"Not exactly," replied the agent; "but it may interest you a trifle. Number Three will be late."

"Late?" gasped Mr. Perkins. "How late?"

"Can't tell. It may be only an hour, or it may be two or three hours, or it may not get in to-night. There has been a washout down the line."

"What?" gasped Mr. Perkins again. "You say the road has had a washout? How dare it! Oh," he cried, gritting his teeth and turning away, "won't I sue it! Won't I!"

"Say," asked the agent curiously, "do you know where you would be now if you had started to walk to Granger Center, instead of pacing the platform out there? You'd be within two miles of that town."

"Nonsense!" ejaculated Mr. Perkins. "I wouldn't have been half-way there. I wouldn't have gotten a good start. Why, man, it's seven miles to Granger Center!"

"And the platform out there is just one hundred and thirty-two feet long," replied the agent. "I've measured it. Each lap is two hundred and sixty-four feet, and twenty laps make a mile.

"I counted the laps you made, and they numbered exactly one hundred. You were so mad, you walked five miles without knowing it!"

"Did I?" asked Mr. Perkins wonderingly. "But it's too late now, isn't it? I couldn't walk to Granger Center now, could I? I'm too tired."

"I COUNTED THE LAPS YOU MADE, AND THEY NUMBERED EXACTLY ONE HUNDRED. YOU WERE SO MAD YOU WALKED FIVE MILES WITHOUT KNOWING IT."

"I suppose you are tired," ventured the agent sympathetically.

"I am," declared Mr. Perkins, breathing heavily. "I'm desperately tired. I'm— Is that for me?"

"Yes," answered the agent, who had responded to the call of his instrument. "It's a telegram for you—collect."

A moment later, Mr. Perkins grasped the yellow slip and read:

Keep cool. Excitable people die young. FRANKLIN.

"Confound him!" roared Mr. Perkins. "I'll teach him to make sport of me! Here—"

He grabbed another telegraph-blank, and wrote:

GEORGE FRANKLIN, Granger Center.

Don't send any more health rules at

telegraphic rates. Want to know about contract. Have you seen chairman board of trustees?

PETER PERKINS.

He paid the charges on this telegram and waited impatiently for the answer. It came a few minutes later, and cost him another twenty-five cents. It ran:

The board of trustees has no chair man

"Nonsense!" exclaimed Mr. Perkins when he read it. Then he seized a telegraph-blank and wrote:

Why has the board no chairman?

The answer came a few minutes later —at Mr. Perkins's expense:

Because he is dead. He was the most prominent resident of the county, and nearly everybody here is at his funeral.

Mr. Perkins read this message twice; then he sent still another telegram to Mr. Franklin. He wired.

What has been done about bridge contracts?

It was with a much more hopeful feeling than he had experienced for many minutes that Mr. Perkins awaited the answer; and when at last it arrived, he seized it with eager fingers. It read:

PETER PERKINS, Highland.
Must have your wires crossed. Bridge contract was let a week ago.
FRANKLIN.

Mr. Perkins folded the telegram very slowly and placed it in his pocket. Slowly he glanced at his watch. Slowly he wiped his face with his handkerchief, and slowly he raised his eyes to those of the smiling agent.

"Do you think," he asked humbly, "that there will be a train going west to-night? I would prefer one that doesn't stop at Granger Center."

TEXAS BUILDS A RAILROAD.

Some Achievements of the Lone Star State in the Field of "Owned and Operated" Industry.

"WITH one fell swoop Texas has solved the 'convict problem,' entered into competition with the sugar trust, and put into operation the idea of State ownership of railroads." While the above sentence seems to suggest a remarkably comprehensive stroke, it is quoted from the Greensboro (North Carolina) *News* in all due and proper seriousness.

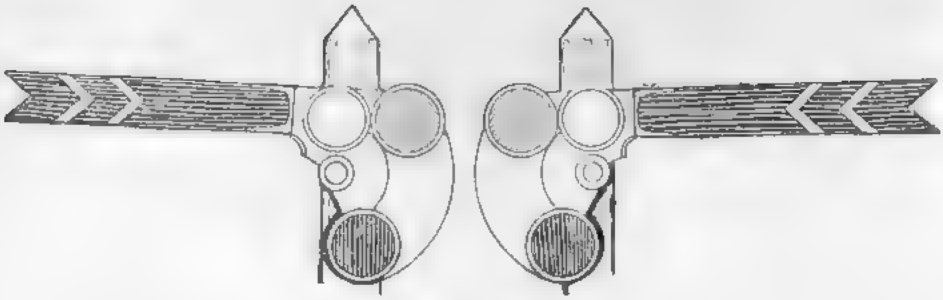
Probably Texas will be the only State in the Union to own railroads, and this is the immediate outcome of the problem of convict labor, with which Texas has been confronted for a number of years. With the sugar trust we are at peace.

From the same paper we gather that there are, in various parts of the country, several county and city-owned railroads, and that there have been several railroads operated by States, but Texas appears to be in the field alone at the present time. The paper then quotes from a statement by Governor Campbell:

"With the additional plantations to be purchased, the sawmills that the State will have to operate to clear much of the sugar land now covered with a good growth of timber, the iron works at Rusk, and the new State railroad, most of the State prisoners will be employed by the State, Texas will soon have enough work for all its convicts to do

"The railroad is strictly a State proposition. It is built by convict labor, but one of the provisions of the bill authorizing it is that no convict shall be employed in operating it. It is twenty-eight miles long, and is being issued by a bond issue of $150,000, made by the public school fund. There were twenty bonds of $7,500 each, one redeemable each year. They bear interest at five per cent."

We would like to tell where this railroad is situated in the broad State of Texas, but, compelled to follow the example of our esteemed informant, we must leave further information to the imagination of our readers



Recent Railroad Patents.

BY FORREST G. SMITH.

A Car Step That Will Fit All Platforms—How Switch Points May Be Both Moved and Held—It Holds the Trolley-Wheel on the Wire—A Brake-Shoe Which Saves Wheel Flanges—No More Mail-Bags Ground to Pieces Under the Wheels—Rail-Creeping May Be a Thing of the Past Car Floors That Help Unload Freight.

AN EXTRA STEP FOR CARS.

Which May Be Lowered Readily at Stations and Raised as Easily When the Train Starts.

AN extremely simple construction of supplemental step for railway cars is shown in a patent (No. 901,632, October 20, 1908) issued to H. Miller, Mead, Colorado As every one is aware, the lower steps of car platforms of the present type are so far above the ground level that in entering or leaving a car it is necessary to step up or down a considerable distance

By mounting the step embodied in this patent upon the ordinary platform, however, an extra step is provided below the ordinary lower step. The device described in the patent is foldable when the car is in motion, so that it will not be interfered with or injured by the ties or road bed, and is raised and lowered by means of a lever pivoted upon the edge of the car platform, which has a link connection with the step

This connection is so arranged that after the lever has been rocked by a light touch of the foot or hand, it will have a tendency toward the movement necessary to lower the step. By means of this construction the step may be lowered readily from the car platform without the employment of tools or cranks

When the step is in lowered position, a lug at one side of it engages with a similar lug on the lever, so that the step is held firmly in position for use. The device may be applied to the ordinary car platform and steps without any change being made in the construction of the latter

TO HOLD SWITCH POINTS.

Pennsylvanian Invents a Device Which Makes Switches Easier To Move and Holds Them After Movement.

QUITE an ingenious improvement in the construction of switches is disclosed in a patent (No. 901,726, October 20, 1908) issued to Archie R. Murray, Johnstown, Pennsylvania. The object of Mr. Murray's invention is to provide, in connection with an ordinary switch point, a device for holding the point firmly in position when thrown to either limit of its movement and to assist in the movement of the point from one position to the other

The invention, which it is reported has been adopted by one of the leading Pennsylvania switch manufacturing companies, is

embodied in an arm which is pivoted within a casing and has pivotally connected to it the end of the switch rod, and a second arm or link which is also pivoted in the casing and is connected pivotally with the extremity of the first mentioned arm. The two arms are so connected that a spring upon the latter one will at all times exert a tension on the main pivot of the former.

When the switch point is in one position, the pivots are all substantially in alignment, except the one which connects the two arms, this one being beyond "dead center" When in this position, the spring acts to hold the switch point against accidental movement.

As soon as the point is thrown, even slightly, by the ordinary bar used by switchmen at street crossings, the pivot point between the two arms will shift to the other side of the line of "dead center" and the resiliency of the spring will act to carry the switch point automatically over to its other position. The throwing of the switch point is thus rendered easier and the point is held securely in either position to which it may be thrown.

TO KEEP THE TROLLEY ON.

Good Results Expected from a Device Which Helps a Trolley-Wheel To Follow the Wire.

EVER since the introduction of the overhead trolley trouble has been experienced in keeping the wheel on the wire in rounding a curve. While numerous guards have been devised, most of them seem to be objectionable for the reason that the wire is liable to become wedged between the guard and the wheel or harp and be severed.

It has been suggested that the harp head be mounted upon the pole so as to rock from side to side, or that it be swiveled at the upper end of the pole, but this arrangement has not been found to be entirely satisfactory, although it is said by some to be better than the guards. A simple and apparently very practical device to accomplish the desired end is disclosed in a patent (No. 902,781, November 3, 1908) issued to Stephen Tully, Jr., Philadelphia, Pennsylvania.

In this device the hub of the trolley-wheel is spherical and is seated in concavities in the cheeks of the harp. This manner of mounting the wheel permits it to rock laterally and also on a vertical axis, so that no matter in what direction the trolley-wire may lead, the wheel will follow it.

The apparatus is so constructed that wedging of the wire in the harp or jumping of the wire from the wheel is practically eliminated. Furthermore, the hub is hollow and is provided with oil ducts, so that after the hub has been supplied with lubricant, the wheel is self-lubricating

LESS WEAR ON WHEELS.

Shoes Which Give the Maximum Braking Surface and also Prolong the Life of the Flanges.

A BRAKE-SHOE having as its object to aid in prolonging the life of wheel flanges is the subject of a patent (No. 902,206, October 27, 1908) issued to Samuel P. Bush, Columbus, Ohio. Instead of contacting with the groove or valley in the wheel between the tread surface and the wheel flange, the brake shoe of the patent is cut away so as to be clear of this portion of the wheel.

In this way wear upon this part of the wheel will be reduced as far as practicable; in fact, it will be eliminated as far as the brake-shoe is concerned. The shoe itself is not weakened in any way by reason of this departure from its ordinary construction, for diagonal wings are formed upon both sides of it to brace the structure.

The full or maximum braking surface of the shoe is maintained, and only that portion of it is cut away which ordinarily contacts with the valley or throat of the wheel.

SAVING THE MAIL-BAGS.

How a Simple Device Helps Swing Your Letters on Board in Safety in a Flying Catch.

IT happens not infrequently that in the delivery of mail-bags to a rapidly moving train the bags, immediately after striking the fork of the crane upon the car, swing back and drop from the fork and are destroyed or torn and their contents scattered beneath the wheels of the car. Bayard F. Wright, Washington, D. C., has secured a patent (No. 903,040, November 3, 1908) upon a crane fork which is provided with means for positively engaging the bag as soon as it is received in the fork and preventing it from being accidentally released by the backward swing.

The device is in the nature of a pivoted latch arranged in the crotch of the fork, which normally lies sidewise against one of

the arms of the fork. A spring is also arranged in the crotch of the fork and normally bears at its end flat against the pivoted end of the latch.

The spring is secured to the arm of the fork opposite to the one to which the latch is pivoted, and is bowed between the arms so that when the bag strikes against the spring its free end is moved back and engages with the latch behind its pivot, swinging the latter to extend across the fork.

The bag is thus confined between the crotch of the fork and the latch, and the latch is held securely in the position described by the engagement of the extremity of the spring with its pivoted end, this end of the spring at this time extending in a line at right angles to the latch instead of lying flat against it, as in normal position.

RAILS CREEP NO MORE.

Man from Milwaukee Perfects an Invention for Holding the Steel Securely on the Cross-Tie.

NUMEROUS attempts have been made to produce an effective anticreeping device for rails, but as a rule they have been failures to a greater or less degree, some of them because they were insecurely fastened to the rails by means of nuts and bolts and others because they were secured by keys or the like. Richard F. Downey, Milwaukee, Wisconsin, has, however, secured a patent (No. 902,567, November 3, 1908) on a device for this purpose and the method of applying it which seems to be entirely practicable and which will hold to the rail securely and prevent creeping.

The apparatus disclosed in the patent is in the nature of a plate provided at one edge with an upstanding flange adapted to be engaged with the edge of the base flange of the rail to which the device is to be applied, the flange being hook shaped in cross section. At the other edge of the plate there is provided another flange, which extends upwardly at right angles from the plate and is spaced from the first mentioned flange a distance less than the width of the base flange of the rail.

In applying the device to the rail, it is shrunk upon the base flange so that its flanges firmly grip the edges of the base flange of the rail, and upon the under side of the plate there is formed a flange extending down and across, which bears against one of the ties of the road-bed so as to prevent creeping of the rail over the tie.

When the apparatus is once applied to the rail, it is as securely held there as if a part of it and slipping is impossible.

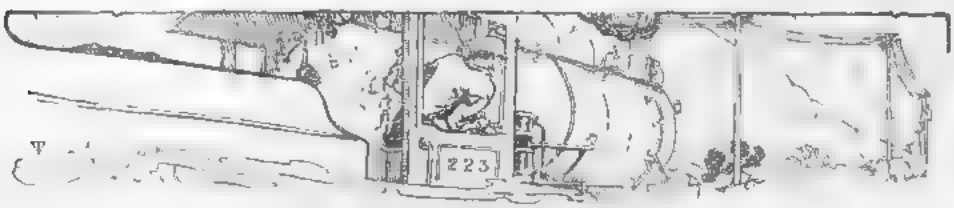
SLANTING CAR FLOORS.

How It May Be Made Easier to Unload Bulky Freight Through the Side Door.

IN a patent (No. 901,413, October 20, 1908) issued to James S. Andrews, New York City, there is disclosed a radical departure in freight-car construction which is apparently quite valuable. As is well known, the present freight-car floors are in the same plane throughout; in other words, they are flat, so that in removing freight from the car it is necessary to drag it by main strength from its position to the door of the car.

In the construction devised by Mr. Andrews, the floor is flat, or plane, at each end of the car, but as it approaches the middle, it inclines downward from each end toward the middle and also from the longitudinal middle of the car toward each side. Between the two door openings of the car, the floor is merely inclined downward from the longitudinal middle of the car toward each side, or in other words, toward each door-sill

By providing such a construction of floor, a heavy piece of machinery at one end of the car may be dragged to the portion of the floor which inclines downward, and thence to the middle portion of the floor, or that part which slopes toward each side of the car, and thence out through the doorways. The inclination of the floor is not at such an angle as would cause the freight to "bunch" at any one point in the car, but is quite enough to assist materially in the removal of the freight.



Meiggs, a Railroad Aladdin.

BY FOSTER OVERTON.

THE TRUE STORY SERIES. The history of the railroad is in large part a series of biographies. In almost every great work there are two or three or four names—or perhaps only one—that stand out prominently as the creators or pioneers of the enterprise. Huntington, Stanford, Hill, Winans, Holladay, Dodge, Vanderbilt—these are a few of the dominant personalities, past and present, whose achievements are written in lines of steel across the continent.

As we go southward, the list dwindles, and the tasks accomplished seem—and are—of less importance, but in South America the man looms large again, perhaps the greatest, most heroic single figure in the history of American railroading. The story of the early days of railroading in our sister continent is the biography of Henry Meiggs.

TRUE STORY, NUMBER TWENTY-NINE.

He Left His Own Land in Disgrace, To Rear a Splendid Fortune and Do a Mighty and Lasting Work Under Alien Southern Skies.

IN the unromantic little town of Catskill, New York, where today the only touch of imagination is shown in painting a livery-stable sky-blue and describing it as "The Hotel de Horse," there was born, back in the last century, a child who received the unromantic name of Henry Meiggs. No one paid much attention to him during his boyhood. He knocked about after the fashion of country boys in general, studying when he had to, playing hooky, and keeping a keen eye open for the things of practical life. At twenty-two he was taken into the lumber business by a friend, and in this modest way began what was destined to be an extraordinary career.

Meiggs was a typical American—alert, audacious, ambitious, with his head full of new ideas. He despised doing things on a small scale. In the lumber concern with which he was connected he at once became a sort of driving-wheel to force his associates out of old ruts and into novel and unusual schemes. His face was the face of a leader—the

EDITOR'S NOTE—All the stories published in this True Story Series have been carefully verified by application to officers or employees of the roads or companies concerned who are in a position to be acquainted with the facts. Contributors should give us the names of responsible persons to whom we may apply for such verification, in order that fruitless inquiries may be avoided. This condition does not imply any lack of confidence in the veracity of our contributors, but is imposed merely to give greater weight and authenticity to the stories.

Series began in the October, 1906, Railroad Man's Magazine. Single Copies, 10 cents.

ONE NIGHT, WHEN ALL WAS DARK, HE PULLED DOWN THE HARBOR UNTIL HE FOUND A SMALL TRAMP SCHOONER, JUST WEIGHING ANCHOR FOR THE WESTERN COAST OF MEXICO.

face of one who would take chances. It was smooth-shaven, clean cut, nervous looking. As events proved, Meiggs was like a cat in his capacity for falling on his feet. Like a cat, also, he showed that he had at least several lives.

The great panic of 1837 ruined him and his partners. For ten years he struggled hard to build up his business again in the face of hard times and without any capital except his own brain and nerve. By 1847 he was again fairly prosperous, though he still chafed at the narrowness of small affairs.

Then came the discovery of gold in California. San Francisco began to spring up like magic—at first a city of canvas, then of lath and plaster and pine boards. Meiggs, far off in Catskill, thought he saw an opportunity. He chartered vessels and sent them around the Horn, laden with lumber and building materials, which at that time in San Francisco were worth fabulous prices.

Presently, Meiggs had earned a small fortune, and the lumber vessels which he chartered had grown into a small fleet. Then, with the joy of one who rushes onward to a great success, he left Catskill and the East behind him, went out to San Francisco, and threw himself into the midst of its turmoil, its daring ventures, and its delirious fever, which sprang from the eager quest of gold. Here Meiggs met others like himself—men who emerged from nowhere to become the princes of the new El Dorado.

He numbered among his friends those successful miners who started with merely a "grub-stake," but who became the masters of millions. Flood, Mackey, Sharon, and O'Brien were at different times his partners. He bought or sold as opportunity offered.

He doubled his money and trebled it. He became a banker with the once well-known Ralston. In short, he turned his hand to a dozen different pursuits, and formed bold and comprehensive plans, in which he saw the prospect of an enormous fortune.

But, in the modern phrase, he extended himself too much. The financial panic of 1857 swept over everything. Meiggs showed not a sign of trouble in his cold, impassive face, though he knew that he could not meet his obligations; that the great fabric which he was beginning to erect must be shivered to pieces, and that in a few short days he would be a ruined man. He faced the situation without fear. His eye was on the future

He recognized, for the moment, no moral law, but decided boldly to save himself at any hazard. While his credit was still good, and before any one had suspected that he was on the brink of ruin, he forged the names of several of the richest men in San Francisco, raised two hundred thousand dollars by the sale of the forged paper, converted the money into Bank of England notes, which he sewed in his undergarments. Then one night, when all was dark, he procured a rowboat and pulled down the harbor until he found a small tramp schooner, just weighing anchor for some small place on the western coast of Mexico.

When morning dawned, Meiggs had disappeared, leaving no trace behind him. Some thought that he had taken his own life. Others imagined that he had fled, but no one really knew the truth. South America was then remote, and practically unknown to all our countrymen. Hence, when, after months of desultory wandering, Meiggs appeared in Chile, there was no one to recognize

HE BUILT NEW BRIDGES, WATCHING EVERY RIVET THAT WAS DRIVEN.

him, just as there was no one who cared to learn where he had come from.

He was free to begin his life again, with a considerable sum of money in ready cash. Most men in his place would have settled down into a state of idleness, with no thought of the past and no ambition for the future. Not so Meiggs. He quickly acquired Spanish, studied the conditions of the country, and watched keenly for any opportunity which might present itself.

The numerous small rivers which flow down through the mountains to the sea were badly bridged; they obstructed traffic, and the primitive bridge-builders had spanned them with ramshackle wooden structures which were continually being washed away. Now, Meiggs knew nothing about bridge-building. He was no engineer. He was, however, quick to see what might be done, and he had that sort of genius which can get efficient work from others.

The government asked for bidders on a few bridge contracts. Meiggs at once underbid all others. He secured the services of English and American engineers, and in what seemed to the Chileans an incredibly short time he had finished his contract. Light, graceful iron spans were thrown across the streams, defying floods and astonishing the natives by their strength.

More contracts fell to him at once. He built new bridges, watching every rivet that was driven, hurrying his men, preventing waste, and insuring complete success. When his work was finished, after paying his subordinates, he found that he had made a solid profit of a million and a half dollars.

His first act was to send North the money to reimburse, with interest, the men whom he had wronged. Already he was a conspicuous figure in the Chilean republic, and new contracts added to his wealth.

About this time a love-affair caused Meiggs to pause in the midst of his financial enterprises. A beautiful Chilean girl was responsible for this *intermezzo*. During Lent young girls were often taken to the shelter of a convent, where they received religious instruction from the nuns. It happened that a convent stood next to the house of an American dentist named Robinson, from whose windows and roof the cloister garden was plainly visible. Looking out of one of the windows, Meiggs saw a graceful, dark-eyed girl walking up and down between the flower-beds.

With the mingled impetuosity and decision of his nature, he fell in love with her at sight. Managing to attract her attention, he threw a note to her, wrapped about a pebble. She was at the age at which romance begins to blossom in the heart of a Southern maiden. When she read the note she blushed, and was at first inclined to give it over to the nuns, but the ardor of her American admirer appealed to her imagination.

Then began a wooing which was carried on from roofs and windows and without a single spoken word. At last the girl responded to the notes. Meiggs lost no time. He urged that she escape and marry him. A rope-ladder was let down from the dentist's windows, the girl ascended it, and was in Meiggs's arms.

A tremendous uproar followed. The convent hummed like a hive. The ecclesiastics of the city thundered against the sacrilegious American. The young girl's parents appealed to the government. But Meiggs was a man who liked to have his own way, and usually had it. In the end, all was smoothed over, and the pair lived together very happily for many years.

The man who had left his country in disgrace was now about to enter on the really great work of his life. He went northward to Peru, and applied his energy to the enrichment of that country.

Until his coming, communication between the seaports and the interior had been almost impossible. The gigantic Andes reared their tremendous crags as a barrier. Behind them lay rich estates and plantations of great fertility. In the mountains themselves were beds of nitrate and silver-mines.

Yet what did this avail when the wealth of the interior could be brought down to the coast only on the backs of mules and over narrow mountain-paths, which even the Indians hesitated to traverse? Meiggs, however, grasped the situation with a daring which made the languid South Americans stare.

"All these obstacles shall be removed," said he to the government authorities. "The products of your plantations and your mines and your nitrate beds shall be available for export. They shall pour down wealth upon your coast, and all the world shall send to buy them and bring goods in exchange."

"Does the *señor* propose to carry away the mountains?" asked a minister of state, with a sneer that was but half concealed.

"No," said Meiggs, "but I propose to bore through them and to run railway-trains right up their sides. Give me the concessions that I want and you will see."

No one believed it possible, yet the confidence with which this strange American spoke impressed his hearers. Besides, they knew that he had done wonderful things in Chile, and that he had millions at his disposal. And so they granted him concessions, and he fell to work upon the astonishing railway which runs from the seaport city of Callao up to Lima. This railway was begun in 1870.

MANAGING TO ATTRACT HER ATTENTION, HE THREW A NOTE TO HER, WRAPPED ABOUT A PEBBLE.

Starting from Callao, it ascends a narrow valley, rising five thousand feet in the first forty-six miles. Then it runs along a winding, dizzy path, skirting the very edge of precipices, traversing bridges that are suspended in the air, and shoots through a series of sixty-three great tunnels until the trains are at an altitude of nearly sixteen thousand feet—"the

most elevated spot in the world where a piston-rod is moved by steam"—at least, at the time it was built

The greatest tunnel of all, which pierces the very pinnacle of the Andes, is nearly a mile in length. Mountains were bored through, ledges were blasted along their sides to rest the track upon, deep cuttings were made as though a god had slashed them out of stone.

A writer has described the system of reverse tangents which had to be adopted in cañons too narrow for a curve: "The track zigzags up the mountainside on the switch-and-back-up principle, the trains taking one leap forward; and after being switched onto another track, another leap backward, until the summit is won. So that often there are four or five lines of track parallel to each other, one above another on the mountainside"

Almost all this work was done in solid rock by blasting. The earth used for ballasting was carried up on the backs of mules. The grading was accomplished, not by pick and shovel, but by the drill and by the use of hundreds of thousands of pounds of powder. At that time dynamite was not generally used. Steam-drills had not been invented.

The difficulties of the task were almost incredible; since those who labored over it were exposed alike to landslides and falling rocks, as well as to explosions, while at the high altitudes they suffered from a peculiar disease which affects those who have not lived and breathed in air so rarefied. In many places men were lowered by ropes over the edge of precipices to drill and blast.

On one occasion a whole train of mules, loaded with cans of powder, was blown up, destroying not only the mules themselves, but all the workmen within a distance of nearly half a mile. It is said that seven thousand lives were lost before the marvelous work was finished. It remains to-day one of the wonders of the world, and a lasting monument to the bold imagination and terrific energy of Henry Meiggs.

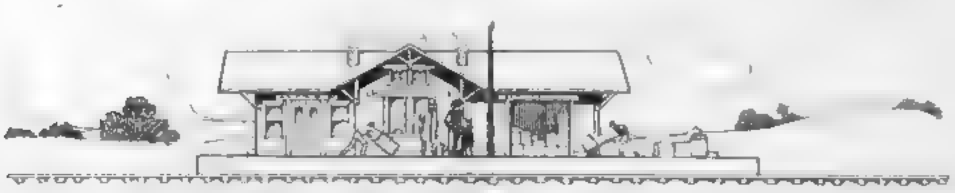
Yet even this was but a single one of the man's colossal enterprises, which before long extended from Ecuador to Patagonia, and through Bolivia as well as Chile and Peru. Scores of little railways were made to run like iron threads from every port on the western coast of South America, up into the heart of the Andes, giving to the natural wealth of the interior a profitable outlet to the ocean

Before his work was finished, Meiggs was the best-known man in South America. The common people looked upon him almost as a sorcerer. The governments consulted him, and felt honored by his friendship with their presidents and statesmen. His wealth numbered uncounted millions.

He lived with the magnificence of an emperor, in a great palace which he reared at Santiago in the midst of a superb park diversified by groves and gardens. Every piece of timber, every brick, and every tile which went into its building had to be imported at a vast expense. Here and in his numerous villas, Meiggs entertained his friends with a luxury that has perhaps never been equaled in the New World.

All Americans, no matter who they were, received a cordial welcome and were made at home, to stay as long as they desired; for Meiggs deeply loved the country which he had left so ignominiously, and which he was destined never to revisit.

He died just thirty years ago; but his memory lives in the great works which he constructed, and will never be forgotten throughout the length and breadth of South America. He was the Aladdin of his time, a genius whose story deserves to be recorded among those who have been the incarnation of American capacity and creative power.



THE MAN WHO LOST HIMSELF.

BY J. AUBREY TYSON,

Author of "The Man of Straw," "A Railway Pizarro," and "Juno at the Way-Station."

The Bloodhounds of the Law Appear and Cross the Trail of the Man with the Hooked Nose.

SYNOPSIS OF PREVIOUS CHAPTERS.

A YOUNG man leaving the desk of a Broadway hotel suddenly realizes that he has lost his identity. At the hotel to which he goes to pull himself together, he discovers that he has a wound in his head, but fails to find any clue to resurrect his lost memory. In a pocket he finds some scraps of a letter from "Marian Enderby," making an appointment with "Floyd Rockwood," and in another pocket he finds an envelope containing five thousand dollars, inscribed in his own writing with the name of an apartment house. He also finds from a newspaper that a lawyer named Lanier has been murdered, and that he is wearing clothes such as the man suspected of the murder wore. Next day he visits Miss Enderby, who, mistaking him for the detective, Rockwood, tells him the story of a missing deed to a mine which had been forced from her afterward murdered father at the point of a gun.

Several interests are fighting to get the deed, which, it is believed, has fallen into the hands of one Wiley Slagon. As the man is about to leave Miss Enderby another man calls, giving the name of "Floyd Rockwood." The two men confront each other, and the newcomer, with evidences of abject fear, turns and flees. Returning to the house after a fruitless chase, the first caller tells Miss Enderby of his loss of memory. He gets on the trail of Slagon, and calling up Miss Enderby in the evening is hurriedly called to her house.

CHAPTER IX.

In the Shadow of Vengeance.

MISS ENDERBY had told Rockwood that she would expect to see him in fifteen minutes. He was at her door in twelve, and a minute later he was in her presence.

The young woman met her visitor at the door of the drawing-room, and it needed no more than a glance to show him that a remarkable change had come over her since he had left her in the morning. She wore a black gown, which rendered more startling the pallor that had settled on her face. Her eyes were troubled, but as the young man met their gaze he fancied that they expressed a momentary feeling of relief.

"You have been a long while getting here, but you're better than your promise," she said with a feeble attempt at a smile. "I have been counting the minutes."

"Has anything happened?" he asked anxiously as he took the hand which she extended to him—and forgot to release it.

"Nothing more serious than this conspiracy to frighten me in which you and Mr. Farnsworth are engaged," she replied, as after a feeble attempt to recover her hand from the grasp of her visitor she led him into the drawing-room.

"A conspiracy to frighten you, Miss Enderby?" the young man exclaimed wonderingly, dropping her hand and wheeling a chair toward the sofa on which she was preparing to seat herself.

"Why is it necessary that I should go to Philadelphia to-night?" she asked.

He looked at her blankly.

"To Philadelphia!" he repeated.

She gazed at him with a quizzical frown. "Come, come, don't try to make me believe that your memory has played you false again," she protested. "Didn't you tell me over the telephone, scarcely more than an hour ago, that I must take the eight o'clock train to-night for Philadelphia and there await the arrival of Mr. Farnsworth from the West?"

Rockwood shook his head gravely. "No, Miss Enderby, I made no such suggestion," he replied. "I have talked with you over the telephone only once this afternoon. That was fifteen minutes ago when I told you I was coming here."

With compressed lips and wondering, fearful eyes, the girl searched the face of her visitor. Then her gaze wandered to the floor. At last she rose abruptly with a little sigh

"Mr. Rockwood, I am in great—very great trouble, but under the circumstances, I think you must admit that until you have succeeded in finding some way out of the misfortune that has befallen you, it will be unwise for me to burden you with any further responsibility in my affairs."

A stricken look came to Rockwood's face and he, too, rose. "You distrust me, then?" he asked.

Miss Enderby shook her head. "No, I do not distrust you, but there is something about your relationship with Mr. Farnsworth that I do not understand and which you, unfortunately, are unable to explain to me. He has told me that you are only a detective, but it is plain that you are something more than that.

"Why should he deceive me? He tells me to trust you implicitly—to be guided only by your advice. I told you this morning that I did trust you—and I do."

"I shall try to prove worthy of it, Miss Enderby," said Rockwood in a voice that shook a little.

"I know you will do your best, but—well, there is much that he expects you to tell me now, and yet it seems you can tell me nothing."

"You heard from Mr. Farnsworth after I left you?"

The young woman hesitated, and Rockwood saw that she was disinclined to give him more of her confidence. Glancing at him, she saw his humiliation and distress.

"Yes," she answered quietly. "Yes, I had a telegram about an hour and a half ago."

"Did he speak to you of—"

As Rockwood paused, the young woman glanced at him sharply.

"Did he speak to me of—?" she repeated.

"Of young Tredenham?" he asked.

"Ah, you do remember, then?" she exclaimed. "Your memory has come back to you?"

Rockwood shook his head sadly. "Unfortunately, no," he said. "And, yet, many things have become so clear to me that I think perhaps I may be able to help you, after all."

As their eyes met, the young man saw an expression of disappointment cloud the beautiful face before him.

"What things are clearer to you now?" she asked.

"The most important is that you are in serious danger from the son of Henry Tredenham, who is half-crazed by his father's death, and is seeking the daughter of Thomas Enderby. We know, of course, that he is in New York, but I do not know why my appearance caused him to leave so quickly when he came here this morning. If he—"

She recoiled with a little cry, and looked at him with frightened eyes. "It was Tredenham who came here this morning while you—?" she faltered.

"I think there is no doubt of that," the young man answered moodily.

A new light now dawned on Miss Enderby's mind. "It was as Floyd Rockwood that he introduced himself then, and it may be that it was he who—who—but, no, it must have been some one else who spoke to me over the telephone. The man who spoke warned me against Leslie Tredenham."

Rockwood frowned. "Come, Miss Enderby, we must get a little clearer view of this new phase of the situation," he said gravely. "Let us sit down quietly.

"Tell me what has happened since I left you. I, too, have had a communication from Mr. Farnsworth, but before we speak of that, it is better that I should know what has caused you such alarm."

They were seated now—she on the sofa, and he on a chair in front of her.

"Which came first—the message from Farnsworth or the telephone call?" he asked.

"The telegram arrived only a few minutes after you left. The telephone call did not come until an hour later."

"Will you let me see the telegram?"

Her answer was to draw it from the bosom of her dress and place it in his hands. This was what he read:

> If you have any regard for your personal safety keep clear of Leslie Tredenham. Leave city if Rockwood advises you to do so. He will explain. Trust him as implicitly as you would trust me. Tredenham is playing a sharp and desperate game. Do not let him find you off your guard. Am hurrying home.
>
> FARNSWORTH

Rockwood studied it with a puzzled frown. "This is all you have had from Farnsworth?" he asked.

"That is all from Mr. Farnsworth."

"Now tell me what you heard over the telephone."

"I was alarmed by the telegram, and I waited very impatiently for you to call me up, as you had said you would," the young woman began. "For an hour I heard nothing, then the telephone-bell rang, and I answered it myself.

"A man's voice asked if it was Miss Enderby at the wire. I said it was, and asked who was speaking. The answer came—'Floyd Rockwood.'"

The young man, whose eyes were alight with curiosity and gathering anger, moved farther forward on his chair.

"He told you he was Rockwood, eh?" he murmured.

"Yes. Though the voice did not sound quite like yours as I had heard it in the morning, I had never heard you speak over the telephone, so I did not doubt that he spoke the truth. I asked him what it was he wanted.

"He replied that he had received a telegram from Mr. Farnsworth, who was on his way East, and that Mr. Farnsworth wanted me to go at once to a certain hotel in Philadelphia and there await his arrival from the West.

"'Why must I leave New York?' I asked.

"'Because you have too much to fear from Leslie Tredenham,' was the reply.

"'What have I to do with Leslie Tredenham?' I asked.

"He answered that he would explain all when he met me in Philadelphia.

"'Am I not to see you before I go?' I asked.

"'No,' he replied. 'It is better that we should not be seen together while we are in New York. Leave Jersey City by the eight o'clock train and, on your arrival in Philadelphia, go at once to the Hotel Montgomery. I will either see you or send a message to you there in the course of the evening.'

"To this I replied, 'I will not leave here until I see you and know more of the reasons for such a hasty and secret flight from my home. Why do you not come to the house?'

"He did not answer, and, acting on the impulse of the moment, I asked: 'Are you suspected of that Dunellen affair?'"

Her visitor's interest was feverish as he leaned forward on his chair with his hands clenched on the edges of the seat. "You—you asked him that?" he stammered.

"I thought, of course, that I was speaking to you," the young woman explained.

Rockwood relapsed the tension of his pose.

"He knows that I fear suspicion, then," he muttered. "What did he say?"

"Nothing. Another pause followed my question, then I heard him mutter something that sounded like an oath. A moment later he hung up the receiver. That was all."

Rockwood stared at the floor, his fingers twisting nervously. Then he rose abruptly.

"Miss Enderby, we must get out of this," he said curtly. "I am a little in the dark as far as some of the aspects of this business are concerned, but it is clear enough that Farnsworth is right in warning you to beware of Tredenham.

"If you do not leave the city to-night, you must, at least, leave this house. Tredenham is both desperate and dangerous. It is necessary that you hide from him, at least until we find out more about him and what he is doing."

"But why should the man warn me against himself?"

"Because, in some way he is able to keep himself informed of Farnsworth's movements and intentions. As he is impersonating me, it is necessary for him to act as I would do. He knows that Farnsworth and I fear that he will do you an injury.

"He saw me here this morning, and he naturally assumed that I talked with you about him after he ran away. It was part of his game to get you to Philadelphia. Heaven only knows what would have happened to you then."

An expression of wonder overspread her face. "But why should the man seek to injure me?" she asked.

"Thomas Enderby killed his father."

Marian Enderby's pale face grew paler. "The act was justifiable, was it not?" she asked faintly.

"Quite so," Rockwood assented. "But shortly after Tredenham's death your father was murdered. Who was your father's slayer? What inspired the deed?"

Miss Enderby laid a trembling hand on her visitor's arm. "You think that—that the man we saw here this morning was the man who killed my father?"

"Leslie Tredenham—yes."

"And he means to kill me?"

"We must see to it that he has no opportunity to do so."

She was a woman, and the horror of death was upon her. Henry Tredenham, Thomas Enderby, and George Lanier, victims of the ill fated Lorinda's golden spell, were in their graves. Was a fourth victim to be demanded?

Marian Enderby, high-spirited and brave for most emergencies of every day life, as she was, quailed as she found herself suddenly confronted by the dark, threatening, merciless shadow to which the detective pointed. The implacable Nemesis, which had punished Thomas Enderby, the murderer, was dogging the footsteps of the daughter.

CHAPTER X.

The Expected Blow.

As Rockwood looked gravely and expectantly at the beautiful, horrified face of his companion, she seemed to be almost on the verge of collapse. For some time neither spoke; then Miss Enderby broke the silence.

"Where am I to go? Where will you take me?" the unhappy young woman murmured, tightening her grasp on his arm with fear-stricken eyes raised beseechingly to him.

"You must leave here at once," Rockwood answered with determination. "The cab that brought me is at the door. A sword is hanging over both of us. If I am stricken by that which threatens me, you at least must be safe.

"We will leave the house together. Take with you nothing which will suggest that you are leaving for a journey. Tell your maid that you are going to the office of your lawyer. When you get to your destination, telephone her that you will not be home to-night—that you have been called suddenly to Philadelphia.

"You must put up at a hotel or boarding-house under an assumed name until Farnsworth gets to the city. He will arrive in the course of the next two or three days and will advise you. You must keep clear of young Tredenham until then. While I am trying to solve the mystery of the missing deed, I will be confronted by all the possibilities that arise from that miserable Lanier affair.

"I dare say all will come out right in the end, but—but, in the meantime, the thought that you are in peril would rob me of half the nerve and strength I will need to win the fight."

Their eyes met. In his she read fidelity, strength of purpose, and—something more—something which filled her with a strange mixture of pleasure and alarm. But was it he or herself she feared?

Taking her hands, he looked earnestly into her eyes. "You will go?" he asked.

"If you think it is better that I should—yes."

"Then we must start at once."

"And I am to take nothing with me?"

"Nothing which will suggest to any one that you intend to be gone more than an hour or two."

As the young woman hesitated, Rockwood looked at her anxiously. Their eyes met.

"I will get my wraps," she said a little wearily, and left the room.

When Rockwood found himself alone, he parted the window-curtains slightly

and looked down to assure himself that the cab which had brought him to the house was still in front of the door. He saw that it was, but just as he was about to turn away he caught sight of a second cab. This was on the opposite side of the street, and several doors east of Miss Enderby's house.

Its back was toward him, so he was unable to see its occupant. Beside it, however, stood a thick-set man who talked with some one inside the vehicle, and glanced from time to time toward the window at which Rockwood stood, screened from view by the lace-curtain.

Though Rockwood had no recollection of having seen the thick-set man before, the presence of the cab irritated him, and he fell to wondering who the unseen occupant might be and how long the cab had been in its present position.

But a new problem now presented itself to his mind. Where should he take Miss Enderby?

On a cross-street, just off Broadway, and less than a minute's walk from the Wolverton, was a small, well-appointed hotel, named the Avaton. It was to this he had taken the suit cases he had purchased that morning.

"She will be safe enough there for a day or two," he mused. "This will give me time to get a little more familiar with the situation, and, besides, two or three days ought to find that fellow Farnsworth here."

Hearing Miss Enderby coming through the hall, Rockwood was about to turn away from the window when he saw the thick-set man step back, and a moment later a tall, reddish-haired man alighted from the cab. Both men looked toward Miss Enderby's house and, after a brief period of hesitation, advanced in its direction.

"Well, Mr. Rockwood, I am ready," said Miss Enderby quietly as she appeared at the door of the drawing-room.

The young man did not answer her, however, and, struck by the earnestness of his gaze at something outside, Miss Enderby moved quietly to his side.

"Who are those men?" she asked, and though she spoke quietly there was a note of apprehension in her tone.

"I don't know," said Rockwood.

"They are coming here?"

"I am afraid so."

"Shall I let them in?"

Rockwood hesitated.

"Yes," he said. "Whether they are friends or enemies, it is better that we should hear whatever they have to say."

As he spoke the two men ascended the steps, and rang the bell. The maid opened the door.

"Mr. Rockwood is here, is he not?" asked a voice.

Rockwood and Miss Enderby, standing just within the drawing room door, exchanged wondering glances.

"I will see, sir," the maid replied, and a moment later the portières parted and the maid looked questioningly at her mistress.

"I'd better see them alone, perhaps," said Rockwood.

The young woman nodded assent, and quickly made her way through a door that communicated with the music room in the rear. The maid returned to the hall and the thick-set man brushed by her into the room.

"Mr. Rockwood?" the newcomer asked, looking sharply at the man he thus addressed.

Rockwood, who was carefully scrutinizing the visitor, nodded affirmatively but did not speak.

"Floyd Rockwood?" queried the thick set man in the same tone as before.

"Yes. I am Floyd Rockwood. The maid who admitted you failed to give me your name, however. To whom have I the honor of speaking?"

"I'm Brinker—John Brinker, of the Central Office."

For a moment Rockwood was puzzled; then he grew slightly paler than he had been before. "The Central Office! That is the detective bureau, is it not?"

"Yes."

"Well? What is it you want with me?"

"Your company. That's about all just now, I guess. You've got to come along with me."

Rockwood looked at the speaker calmly. "You mean that I am under arrest?"

The detective nodded.

"What is the charge?" the young man asked as quietly as before.

"I'm taking you on a warrant char-

ging you with the murder of George Lanier, at the Dunellen Apartments, Monday night."

If the detective had expected the young man to show surprise or fear, he was disappointed. As he turned again toward the window his face was a mask.

Brinker drew out his watch.

"We have no time to lose," he remarked easily. Then, to the reddish-haired man who had entered with him and now stood in the doorway: "Tilton, call up the Dunellen and the Wolverton and tell those chaps whose names I have given you to get right down to headquarters to identify the prisoner. I saw a telephone in the hall."

Tilton departed on his errand and Brinker, smiling slightly, turned to Rockwood again.

"You have no objection to going with us, I suppose?" he said

Rockwood was silent. The smile faded from Brinker's lips. He eyed the young man speculatively, his length of arm and breadth of shoulders and depth of chest, drew out a pair of handcuffs, and walked toward him deliberately.

"Oh, there is no need for that," protested Rockwood wearily. "I will go with you, of course, and I'll give you no trouble. I have always respected the law, and I respect it now."

Brinker lowered the hand which he had extended toward Rockwood's right wrist.

"Have you got a gun about you?" he asked suspiciously.

"No."

But the answer did not satisfy the cautious detective, who passed his hands over his prisoner's pockets. He found that the young man was unarmed.

"All right," he said surlily, as he stepped back a couple of paces. "You don't look like a man who is likely to play the fool with me."

Rockwood scarcely appeared to hear him. His mind was busy with this complication of the problem. What could he do for Miss Enderby now. Abruptly he called her name.

Brinker stepped forward quickly, to halt as suddenly when a beautiful young woman appeared in the doorway. Her face was as white as that of a marble image, and as she turned her frightened eyes toward Rockwood her bosom was heaving and her hands were trembling.

Rockwood met her gaze calmly and spoke to her in an even voice.

"Miss Enderby," he began, "this man is a detective who charges me with the murder of a man named Lanier. He has placed me under arrest, and I must go with him, of course."

He paused, but neither by word nor sign did Marian Enderby show that she had heard him. Rockwood turned to the detective and went on:

"Mr. Brinker, this is Miss Marian Enderby. She is being pursued by a young man who, as we have every reason to believe, took her father's life several weeks ago. This man was at the house this morning, but finding me with her, he ran away.

"I came here a few minutes ago to take her to the Avaton Hotel, where she must remain until the arrival of her guardian, William Farnsworth, who is on his way East and should reach here in the course of the next day or two. If you will permit me to carry out this plan, I shall be greatly obliged to you. If you object, I will ask you to take upon yourself the responsibility which you will not permit me to assume."

Brinker looked speculatively from Rockwood to the young woman, and then let his gaze rest on Rockwood again.

"Who is the man who is after her?" he asked sharply.

"Leslie Tredenham, the son of Henry Tredenham, who—"

Rockwood paused abruptly, Brinker looking at Rockwood more earnestly than ever, with a frown of incredulity.

"Henry Tredenham!" the detective exclaimed. "Do you mean that millionaire who was murdered down in New Mexico?"

"Yes," answered Rockwood shortly.

"And this young lady is Tom Enderby's daughter?" asked the puzzled detective.

"Yes."

Brinker thrust one hand into an overcoat pocket and tugged thoughtfully at his stubby mustache with the other.

"One end of that case was put up to us," the detective said hesitatingly. "You know, I suppose, what Tom Enderby was wanted for?"

Rockwood nodded. "We know, of course, that he was charged with killing Henry Tredenham. There is a side to the story, however, which his accusers have not heard, and which, in good time, will be explained in a manner that will clear his name."

"And you say Tredenham's son killed Tom Enderby?" the detective asked.

"Yes. More than this, we have every reason to believe that he intends to kill the daughter."

From the hall came the sound of Tilton's voice, speaking into the telephone His words, however, were unintelligible to the three persons in the drawing-room.

"You say this fellow Tredenham was here this morning?" Brinker asked, turning to Miss Enderby.

The young woman nodded.

"Yes," Rockwood replied. "Both of us saw him, but when he found that Miss Enderby was not alone, the miserable hound got away before I had a chance to speak to him. Afterward he impersonated me, and called Miss Enderby to the telephone, to try to induce her to go to Philadelphia to-night to meet Mr. Farnsworth, her guardian, who, as I said before, is on his way East."

Brinker took out a note-book and pencil.

"Tried to impersonate you, eh? What's his description? What does he look like?"

Rockwood described the man he had seen in the morning. As he finished Tilton reentered the room.

"Better come down to headquarters with us, miss," said Brinker carelessly. "You aren't under arrest, of course, but you'd better tell your story to the inspector.

"After that we'll take you anywhere you like and see no harm comes to you till your guardian gets here. Tilton, take this lady in the cab with you. Rockwood and I will go in the other one."

CHAPTER XI

The Strategy That Failed.

WHEN the two auto-cabs drew up in front of police headquarters, in Mulberry Street, their occupants alighted and entered the building. Only once in the course of the ride had Rockwood addressed his companion.

"Are you quite sure that no one is following us?" he asked, observing that Brinker had been glancing from time to time through the rear window of the vehicle.

"No one except my partner and Miss Enderby," the detective replied.

At police headquarters, Brinker led his prisoner to the office of Inspector Dohl, who was in charge of the detective bureau. Evidently the prisoner was expected. Tilton had arranged for their welcome by telephone before leaving Miss Enderby's house. With a glance at Miss Enderby, the inspector looked at Brinker with a question in his manner.

In a few words Brinker explained to his chief the substance of his interview with Rockwood at the time of the arrest. Even the phlegmatic inspector was visibly impressed at the mention of the Tredenham murder, and darted a searching glance at Miss Enderby.

When Brinker had finished his story, Dohl turned to the young woman.

"And so you think Henry Tredenham's son killed your father?" he asked.

"I have been given reason to think so," Miss Enderby answered in an unsteady voice, with a glance at Rockwood.

There was a pause, then Dohl turned to the prisoner.

"Well, Rockwood, we will relieve you of all responsibility for the safety of this young woman," he said. "I will send one of our men up to her house at once, and he will stay there until the arrival of Mr. Farnsworth.

"Miss Enderby, however, must go to the house about half an hour after the detective gets there, and must remain indoors. If Tredenham calls at the house, he must be admitted, and if he calls her up again on the telephone she must arrange to meet him—even if it is in Philadelphia.

"In other words, from now on she will be under police protection, but she must aid us in our attempt to land our man. Will you agree to this, Miss Enderby?"

Miss Enderby looked questioningly at Rockwood, who answered for her.

"Yes," he said.

Dohl turned to Tilton. "Tilton, take Miss Enderby to a telephone and have

her direct her servant to admit you to her house on your arrival," he commanded.

"Then go up there at once. Miss Enderby will leave here for her home in half an hour. Report to me by phone as soon as she arrives."

Tilton nodded and turned toward the door. Miss Enderby rose, and stood hesitating, looking appealingly toward Rockwood.

"I shall see you before I go?" she asked tremulously.

Rockwood, who had grown suddenly paler than he had been since he had entered the cab, looked interrogatively toward Dohl.

"Yes, yes," the inspector said half irritably. "Go with Tilton now. You will see Rockwood again before you leave headquarters."

With bowed head and faltering steps, the unhappy young woman left the room. When the door was closed behind the departing detective and his fair charge, Dohl leaned back in his chair and surveyed his prisoner curiously.

"Well, Rockwood, things look pretty bad for you," he began complacently. "What have you got to say about this Lanier affair?"

"I know nothing of the affair other than what I have read in the newspapers," the young man answered shortly.

"Do you mean to tell me that you were not in the Dunellen apartment-house on the night of the murder?" the inspector demanded angrily.

"This is neither the time nor place for me to tell you anything," Rockwood answered sharply, gazing defiantly at the inspector. "I have been arrested on a charge of murder, and it is up to you to prove whether or not that charge is true.

"I have told you that I am not guilty of the crime. Until you have evidence that the charge against me is true, the law requires you to assume that I am innocent. If you have such evidence, there is no need of interrogating me.

"If I am to be cross-examined, it must be in court, where I may be represented by counsel. I will decline to answer all questions put to me here."

The face of the inspector flushed darkly. As he surveyed the man before him he was quick to perceive that he was dealing with no ordinary criminal, but a man of the world who knew his rights. On such men as this the police do not often find it desirable to inflict the "third degree."

Rocking slowly to and fro in his swivel-chair, the inspector looked long and closely at his prisoner. Then he said with a taunting smile:

"So you are going to hide behind your rights, eh? That won't do our case any harm, I guess. We've got you with the goods. Want to see some of the evidence—just to set your mind at rest? I'll show you some."

Turning to Brinker, the inspector went on: "Some of the witnesses are outside, Brinker. Bring them in—one at a time."

The detective left the room, to return in a minute or two with a young man in whom the wondering Rockwood recognized the day clerk of the Wolverton.

"Mr. Selwyn, who is this man?" Dohl asked, addressing the clerk and nodding toward the prisoner.

"Floyd Rockwood," replied Selwyn promptly.

"You are sure of that?" asked the inspector.

The day clerk shrugged his shoulders. "I have only his word for it," Selwyn answered curtly. "He came to the desk to day and asked for the key to Mr. Rockwood's room. I asked him if he was Floyd Rockwood, and he told me he was. Then I gave him a telegram addressed to Floyd Rockwood, and he took that, too."

"On how many occasions has he acknowledged to you that he was Floyd Rockwood?"

Selwyn looked at the prisoner dubiously. "On only the occasion that I have mentioned," he replied. "I have no recollection of having seen him before."

"How long has he been stopping at the Wolverton?"

"Since Saturday night."

The face of the inspector darkened. "And you did not see him before today?"

"No. Mr. Hewitt, the night clerk, was on duty at the time he registered."

Dohl turned to Brinker. "Is Hewitt here?" he asked.

"No, sir," Brinker said. "He stayed at the hotel to relieve Mr. Selwyn."

"Well, Mr. Selwyn, we will have to ask you to relieve him now," said Dohl. "Send him down at once, if you please."

The day clerk bowed and left the room.

"Bring in the janitor of the Yosemite," directed the inspector.

Brinker stepped to the door, and Patrick Breen, the janitor of the apartment-house that adjoined the Dunellen, crossed the threshold. This was the man who, according to the newspaper reports, had seen the stranger in the areaway on the night of the murder.

"Breen, is this the man you saw leaving the Dunellen?" the inspector asked.

Breen surveyed the prisoner critically. Rockwood met his gaze steadily, but with a sickening fear in his heart.

"Stand up," Dohl commanded.

Rockwood rose.

"Well?" demanded the inspector, glowering at Breen.

The janitor shook his head. "I can't say as it is," he replied. "The man I saw wore a gray ulster, and the big collar was turned up, almost to the hat. I can't swear that this is the man, but he's about the height of the chap I saw in the area."

The inspector rose and drew out from between his desk and the window a stout suit-case which appeared to be as fresh and clean as when it had left the maker's hands. This case Dohl opened and thrust across the floor toward Rockwood.

The latter felt the blood pound in his temples, and a horrible feeling of hollow sickness assailed him, but his set lips kept back the cry that rose to them. Before him lay the gray overcoat and blood-stained shirt which he had been wearing when he found himself in the theater on the night before. The suit-case was one of the two he had bought that morning and had taken to the Avaton Hotel.

"Put on the coat," the inspector said. "If it fits, we'll see that you wear it."

CHAPTER XII.

Light Begins to Break.

STUPEFIED by the manner in which his carefully laid plans had miscarried, Rockwood stared blankly at the coat and blood-stained shirt that lay at his feet. The inspector smiled grimly and drew out a hat-box, opened it, and held toward his bewildered prisoner the broken derby which Rockwood had left at the hatters when he purchased a substitute.

The latter's fingers trembled as they closed on the derby's rim, but he put it on without hesitation. A moment later Dohl raised the hat and passed a finger over the abrasion above the prisoner's left ear.

"Nasty sort of a blow, wasn't it?" Dohl said. "You are not likely to forget the fellow who gave you that, are you?"

"I'd give all but one month of the life that remains to me if I could remember him," retorted Rockwood bitterly.

"All but one month of your life!" the inspector repeated as he replaced the hat on Rockwood's head and regarded his prisoner with new-born curiosity.

"One month would be enough," said Rockwood, stooping to raise the overcoat.

"What would you do in that month?" Dohl asked

But Rockwood was getting into the overcoat and made no reply.

"Do you mean to say you don't know how you got a crack like that?" persisted the inspector.

"If I did, I should not be in this plight to-day," said Rockwood, turning up the broad collar around his face.

"Well?" demanded Dohl, turning to the janitor. "Can you identify him now?"

Breen nodded. "Yes, that's him," he said.

Looking dully at the janitor, the man with the lost memory began to turn down the collar of the coat.

"Not so fast, please, Rockwood," said the inspector. "We will have one or two more persons in here to look you over before you get out of the costume in which Mr. Lanier saw you last." Then turning to the detective, he added: "Now let's have McGrath."

Dazed and bewildered as he was, Rockwood still had sufficient self-possession to recollect that McGrath was the name of the patrolman who had seen the mysterious-looking stranger lurking around the entrance to the Ninety-Sixth Street station of the Subway. A big, florid-faced man in uniform entered the inspector's office.

"Who is this man, McGrath?" Dohl demanded.

"That's the fellow I seen at the Ninety-Sixth Street Station of the Subway, on the night of the Lanier murther, sor," the patrolman answered deliberately

The inspector nodded. "That's all, McGrath," he said. "When you go out send in Johnson, the cabman."

A gray-haired, alert-eyed, sallow-faced little man, clad in a long, threadbare, blue coat, with big steel buttons, was the next to present himself.

"Ever see this man before, Johnson?" Dohl asked complacently.

The cabman stared at Rockwood sharply. "Never to my knowledge," he answered cheerfully.

Dohl, who had expected an affirmative answer, scowled darkly at the speaker. "Are you sure of that?" he demanded, half angrily.

"Sure as me name is Johnson," the cabman answered easily. "On the night of the Lanier murder I seen a coat like that one, but if this was the coat I saw, another man was in it then. I'll swear to that."

"How did the other man differ from this one?"

Cocking his head slightly to one side, the little cabman regarded the prisoner thoughtfully.

"Well, inspector, I should say the other's face was a bit broader, and he had a hookish nose," he explained.

"A hookish nose?"

"Yes—quite hookish, sir."

"You mean it was higher at the bridge?"

"Oh, yes—quite a bit higher at the bridge. No, sir, this ain't the party I drove from Ninety-First and Broadway to the Wolverton—though the coat is similar."

"What was the color of the eyes of the man you drove to the Wolverton?"

The speaker was Rockwood, whose face was less mask like than before, and into whose gray eyes there had come an expression of eagerness. Dohl started and was about to speak when he checked himself abruptly. The cabman hesitated.

"Well?" demanded the inspector sharply. "You heard this man's question, didn't you?"

Johnson shook his head. "Lord bless you, sir, I couldn't see the color of his eyes in that light. Besides, he kept his face down while he was paying me his fare, and all I saw of him just then was the top of his hat."

"Was the hat like mine—like this I am wearing now?" Rockwood asked.

The cabman grinned. "No—no," he said. "It was a derby hat, but it was a queer old fashioned kind—sort of flat at the top, and the brim didn't curl up like that one you've got on now."

"Was it broken?" Dohl demanded.

"No, there wasn't no break in it as I could see."

Dohl frowned and looked thoughtfully toward the window. Then he turned to the detective who had arrested Rockwood:

"Brinker, tell the sergeant to hold these witnesses for another twenty minutes. Then come back here to me."

Rockwood and the inspector were left alone.

"You admit, I believe, that you are Floyd Rockwood?" the inspector asked, turning suddenly toward the prisoner.

Rockwood nodded. "Yes," he said.

"And that you registered at the Wolverton on Friday night?"

"The day clerk of the hotel has told you that I did so."

"Well, you don't deny it, then?"

"I deny nothing."

The inspector scowled and rose impatiently.

"Come, come, man, you aren't an utter fool, I suppose," he said angrily. "If you are innocent, why don't you speak out as an innocent man would do under the circumstances. If you didn't murder George Lanier, I don't want to waste any time trying to prove that you're the man we want.

"If you're wise, you'll answer my questions. Now, who the deuce are you?"

"I have told you that my name is Rockwood—Floyd Rockwood."

"Where do you live? Where is your home?"

Unable to give a truthful answer to this question, Rockwood knew that it would be worse than idle to speak falsely. If he gave a Chicago address, the Chicago police would be asked to verify his statement, and would return an unfavor-

able report within the next two hours. Then he would be worse off than ever.

"Come, come, make a clean breast of it," the inspector said in a more kindly tone. "If a pal of yours pulled off that trick on the Dunellen, we'll have him sooner or later, and the best thing you can do is to tell just what happened. George Lanier is dead, and it's perfectly clear he didn't kill himself. He was murdered by somebody who visited him Tuesday night. The janitor of the house next to the Dunellen has said he saw you skulking around the rear entrance of the Dunellen about the time of the murder.

"Patrolman McGrath says that just after the murder he saw you acting suspiciously near the Ninety-Sixth Street Station, and the cabman says he took to the Wolverton a man who wore a coat like that you are wearing now.

"There's a screw loose somewhere in the cabman's story, but it was that same story that led us to a man who was trying to conceal blood stained garments this morning—garments which undoubtedly were worn by the man who committed the deed. There is no doubt that the murderer of George Lanier was in that cab, that he went to the Wolverton, and to the room occupied by Floyd Rockwood"

"You've searched the room, I suppose," said Rockwood glumly.

"Oh, yes. Not only did we search the room in the Wolverton, but we searched the room in the Blanford, where you slept last night, and the room in the Avaton, where you sent two suit-cases this morning. One of those suit-cases, you see, is here—the one containing the gray overcoat."

"How long have your men been hounding me?" asked Rockwood bitterly.

During the pause that followed, the inspector regarded his prisoner fixedly. At length he said:

"If I answer your questions, young man, you will understand that it is because I think that a knowledge of the nature of the evidence we have against you will enable you to see the uselessness of trying to deceive us. Your failure to make a frank confession of your connection with the affair may keep us in the dark on some points for a little while, but in the end we will learn all that we seek to know.

"If you tell us the truth, we will treat you as kindly as the law allows. If you are going to continue to kick now that we've got you in the stall, we'll go the limit in the other direction. Is the situation clear to you?"

"Oh, perfectly clear," said Rockwood, nodding gravely.

"Good," said the inspector. "Then I'll answer your question. You have been under police observation since six o'clock last night."

Rockwood stared at the inspector. "Since six o'clock!" he murmured.

"Since six o'clock last night," Dohl repeated.

The unfortunate young man found this statement even more startling than any that had preceded it. His memory ran back only to eight o'clock—the time at which he had found himself in the theater. The police who had watched him for two hours before this, knew more of his history than he did himself.

Dohl watched his prisoner as a cat watches a mouse, and smiled grimly as he saw that the young man was hard hit by the revelation of the work already done by the police. Then he went on:

"By noon yesterday the description of the murderer, as given by the men who have just looked you over, was in the hands of every policeman in the city," he said. "Tilton saw you at Fifth Avenue and Forty-Second Street, and followed you to a restaurant. From there you went to the waiting-room of the Wolverton, where you addressed and sealed an envelope which you posted near the hotel."

Rockwood was about to speak when the door opened and Brinker entered the room. Paying no attention to the detective, the inspector kept his eyes on Rockwood.

"Well, now, young man, what have you got to say?" he asked.

Rockwood shook his head. "Nothing," he answered.

Brinker stepped close to the inspector and spoke to him in an undertone.

"All right, Brinker, let's have her in," Dohl said. "Take this fellow into the next room and keep him there until I send for him."

Rockwood flushed angrily, but did not speak. It was apparent that as a result

of his reticence, Miss Enderby was to be interrogated. Protest would have been useless, so he accompanied Brinker from the room.

The room in which he found himself was scarcely larger than a cell. It was lighted by a small window near the top of the outer wall, and its only furniture was a table and three chairs.

"Better make a clean breast of it to the inspector, my boy," said Brinker, as the two men seated themselves so that the table was between them. Rockwood had nothing to say to this nor to any of the other remarks the detective offered. Finally, the latter abandoned the attempt and both men sat glum and glowering. The silence was broken by Rockwood.

"I may smoke, I suppose?" he said.

"Oh, yes. Blaze away."

From his vest pocket Rockwood drew out a couple of cigars. One of these he passed to Brinker, who thanked him with a nod. The cigars had been lighted only a couple of minutes, however, when Rockwood took his from between his lips, eyed it with disfavor, and flung it on the floor with an expression of disdain.

"Don't like it, eh?" queried the detective, looking at his companion with a smile of surprise.

"No," Rockwood answered shortly.

"Are these a couple of the fellows you took out of the box in the room at the Wolverton?" Brinker asked carelessly.

Rockwood frowned at the smug face of the detective. "How do you know I took any cigars out of that box?" he demanded.

"I was watching you through the transom," replied Brinker, as he puffed at his cigar in a manner which indicated that he found nothing objectionable in the quality of the tobacco that his companion had given to him.

"Then you saw me—" Rockwood began, and stopped.

"I saw everything, my man," the detective replied; then looking quizzically at the prisoner, he added: "I thought for a minute that you were onto the fact that I was watching you. What did you mean by that grand stand play of examining those blood-stains? One would have thought you never had seen them before."

"To be perfectly frank with you, I had no recollection of having seen them before."

"The cuffs and handkerchiefs were yours, weren't they?"

Rockwood shook his head. "I don't know," he answered gloomily.

There was a pause, then Brinker asked:

"Who sent you that telegram? Who is the fellow who signs himself 'F'?"

"You read that telegram before it got to my hands?"

"Oh, yes. I took a copy. I have a copy of the letter, too."

Rockwood hesitated. The telegram and letter corroborated the story which had been told to Brinker about young Tredenham's threatening attitude toward Miss Enderby. On this subject it was better that the police have all the information that he could give.

"The letter and telegram were sent by William Farnsworth, Miss Enderby's lawyer," the young man replied.

Brinker puffed more vigorously at his cigar, and looked thoughtfully toward the window. Silence fell between them again until the door was opened by the inspector two or three minutes later.

"Come out here, Brinker," he said.

The two men rose, and as they entered the inspector's office they saw that, besides Dohl, there were two other persons in the room. One was Miss Enderby. The other was a young man whom Rockwood had no recollection of ever having seen before. Dohl turned to the stranger.

"Now, Mr. Hewitt, I want you to tell me whether you have met this man before."

The night clerk of the Wolverton looked at the prisoner steadily for a full minute. Then he shook his head.

"This is not the man who registered as Floyd Rockwood on Saturday. I saw him last night, in the Wolverton, however. He came to the desk and bought three stamps for a letter he was about to post. His manner was a little strange, and at first I thought he had been drinking, but afterward it seemed to me that he was ill. For this reason I asked him if I should post the letter for him."

"What sort of looking man was it who registered?" the inspector growled.

"His face was broader than this gentleman's, and his nose was a little more prominent."

"More hooked — higher at the bridge?" asked Dohl.

"Yes—yes, that's it. And his eyes were black."

"Black!" exclaimed the inspector sharply

Miss Enderby started, and a questioning expression came to the pale features she turned toward Rockwood, and they seemed a little less pale.

The young man read the question in her eyes, and nodded slightly. Dohl saw the exchange of glances.

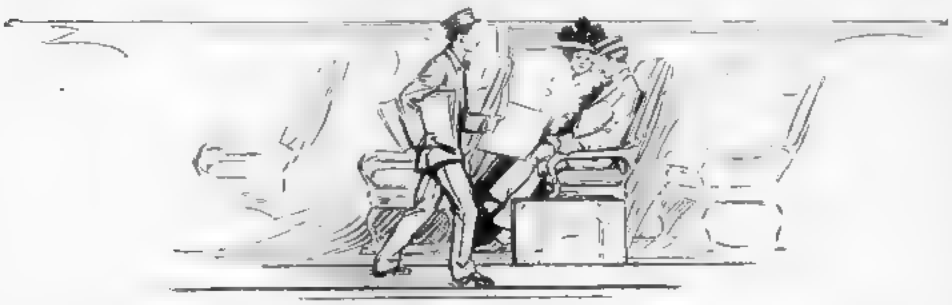
"Well?" he demanded abruptly. "Do you know him?"

"Yes—yes," Miss Enderby answered with feverish haste. "It was the man I saw this morning at my house."

"You mean " began the inspector, looking earnestly at Rockwood

"It was Leslie Fredenham," Rockwood answered gravely.

(To be continued.)



ONLY A RAILROAD STATION.

Showing What Can Be Done with Mere Words When the Subject Gets a Good Grip On the Writer's Throttle-Lever.

WE are accustomed to regard railroad stations as the most prosaic products of modern life, therefore, when we see one described with the imagery of the "Arabian Nights," it gives us pause. The railroad station under observation is the new Lackawanna station recently built at Scranton, Pennsylvania.

We cannot give to posterity the name of the newspaper that did such ample justice to it, for we have it not, but it certainly ushered the new station into the world with a great reputation to live up to

To begin with, we are informed that the station "is situated on a triangular plaza," and that "the entire exterior is of Indiana limestone, while the main façade of the building is one of the finest examples of French Renaissance in the United States. The station is surrounded on all sides by a marquise twenty feet in width to afford shelter

"The interior decoration is of Formosa, a soft, pinkish yellow Italian marble. The waiting-room itself is fairly gorgeous in its lavish profusion of wonderfully colored Italian marbles. In the matter of decoration there is no other railroad waiting-room in the country that can compare with it.

"Probably the most striking features of this room are the thirty-six faience panels, representing actual scenes along the line of the Lackawanna Railroad. The base of this room is finished to a height of a foot or more in Alps green, a beautiful Swiss marble

"The room is lighted by day by a ceiling of leaded glass, and by night by electric lights concealed behind a cornice surrounding the room. The four upper floors of the building are occupied by the division and general offices.

"One room, comprising the entire top floor, is occupied by the auditor of freight and ticket accounts. This one room has accommodations for two hundred and sixteen employees

"The station is equipped with the celebrated Brush train-sheds, of the same type as that employed in the company's terminal at Hoboken, which furnish a maximum of light and almost an entire absence of smoke"

Roll-Call of Veterans.

We May Count the Years of Their Labor, but Only They Know the Price That Time Has Exacted in Toil and Hardship.

A PENSION FOR SNYDER.

Engineer Who Was Promoted by Andrew Carnegie Reaches the Final Mile-Post and Pauses to Rest

ENGINEER CHRISTIAN N. SNYDER, who retired on a pension from the Pennsylvania last November, is a man of much distinction in his calling. He ran the first through train over the Pittsburgh division, and was one of the first men to haul the Southern Express, the first non stop train to run between Altoona and Pittsburgh. He has worked for the Pennsylvania for fifty years.

His first position was as track-layer during construction. Afterward he became a brakeman, and was promoted to engineer in 1863 by Andrew Carnegie

For a number of years he has had a run on the Williamsburg branch. Mr. Snyder is now seventy years of age

PIONEER OF NEBRASKA.

Cosgrove Helped Build Union Pacific, but Jumped Into the Shops After an Experience with Indians.

ONE of the pioneer railroad men of Nebraska passed away some months ago in the person of James Cosgrove, of Omaha. When the Union Pacific began to push its web of steel across the State he began his railroad career.

He joined the construction forces, and it is said that while engaged in this work he was captured by a band of Indians. They were about to kill him, when he escaped to Omaha, where he lived from that time to the day of his death

After his experience with the Indians, he was transferred from the construction department to the locomotive and car department. He worked in this capacity for twelve years, when a severe injury compelled him to take lighter employment

He was made watchman of the shops. This position he held until 1904, when ill health and age brought about his retirement on a pension. To his other virtues he added thrift, and the property he left behind is estimated at forty thousand dollars.

ROCK ISLAND VETERAN.

Davis Passed Half-Century Service Mark Two Years Ago Still Going When Last Heard From.

ROCK Island Division No. 60, Brotherhood of Locomotive Engineers, bestirred itself some time ago and celebrated the fiftieth anniversary of Engineer C. H. Davis's connection with the Rock Island. There were jubilations and presentations, and plenty of joy in general

That was considerably over a year ago In fact, it will soon be fifty-two years since Mr. Davis first joined the Rock Island forces

He entered as a fireman in 1857 Two years later he was promoted to engineer of a freight-train, and ten years after that he was given a passenger run. During the entire period he has been on the East Iowa division

THE PROGRESS OF GRAVIT.

How a Railroad Carpenter Reached the Top of His Business and Retired With Honor at Eighty.

FOR fifty-nine years William M. Gravit, of Elkhart, Indiana, has been in the employ of the Lake Shore Railroad. He was born in New York State over eighty-one years ago, and his railroad life began when

he joined the Erie and Kalamazoo in 1849. For three years he was engaged as a carpenter in bridge construction.

In 1852 he entered the car shops at La Porte, Indiana. In 1856 he was placed in charge of carpenter and bridge work between Elkhart and Chicago, his sphere of authority in this capacity being gradually extended over several divisions.

He was promoted to the post of master carpenter in charge of all the divisions west of Toledo, in 1886. On account of his age he gave up the active management of the department in 1905, taking the position of assistant master carpenter. It was from this post that he retired recently.

A RAILWAY MAIL RECORD.

Griffen, One of the First Appointees West of the Missouri, Is Still the Veteran of that Section.

WHEN the railway mail service was first put in operation west of the Missouri, in 1867, Andrew W. Griffen was one of the seven clerks first appointed. Mr Griffen is the only one of the seven who is still in the service.

More remarkable is the fact that he is still on the run to which he was first appointed, Omaha to Cheyenne, and has been on it almost continuously from the first. In a newspaper interview some time ago Mr. Griffen recalled incidents of the old days.

"They called us 'route agents' in the early days," said he. "We occupied a little space in a combination car which was less than one-third of the small car.

"There was only one man in a car, and I don't think the entire mail on the run from Omaha to Cheyenne weighed five hundred pounds. I remember I used to get through with my work almost by the time we reached Papillion, just a few miles out of Omaha, and the rest of the run was pretty much of a loafing job. Coming back from the West the mail was so light I could sometimes carry it all myself.

"Compare that day with the present. Now there are 127 men on the Omaha Cheyenne run. Twenty one of these go out every day, in place of one in 1867. There are about ten big cars heavily loaded with mail going out of Omaha every day over the Union Pacific to Cheyenne, in place of the small part of the one car, as in 1867.

"The trip from Omaha to Cheyenne then took about twenty-six hours. Now we make it on the Overland in just about half that time. We made a trip every seven days. Our pay was one thousand dollars a year. To-day we make the trip twice every twelve days."

In 1869 Mr. Griffen was transferred for about a year to the Chicago-Iowa City run. With him was transferred T. N. Vail, who afterward became general superintendent of the entire railway mail service. Also, there was Daniel Kennison. On the Chicago-Iowa City run were also at that time Captain White, later general superintendent, and Walter L. Hunt, also prominent later in railway mail circles.

When Mr Griffen was transferred again in 1870, it was to become chief clerk of the Omaha district, succeeding James D. Stacy. This was before the days of the civil service. After holding this place for five years he was put back on his run, in which he has continued up to the present time.

AN ANTE-WAR VETERAN.

Beattie Has Pulled a Throttle Nearly Fifty Years, and Is Senior Veteran of the D. and H.

A CORRESPONDENT, who has previously favored us with his interest in this department, sends us a brief outline of the career of a Delaware and Hudson veteran, Engineer Marcus J. Beattie.

Mr. Beattie is seventy-one years of age. Fifty-one years ago he secured a place as fireman on the Rutland and Washington, now a part of the Delaware and Hudson. Three years later, in 1860, he was made engineer.

During the Civil War he went South and ran an engine in the service of the Federal government. After the war he returned to his old position, and has been in continuous service as engineer ever since.

Mr Beattie is a resident of Salem, New York, and is, according to our correspondent, the oldest engineer in point of service at present employed on the Delaware and Hudson.

McCANN TO THE FORE.

Lackawanna Veteran with the Uncheckered Career Who Has Charge of the Fine New Depot at Scranton.

IT is not inappropriate that, at the time the beautiful new station of the Lackawanna at Scranton is completed, some attention should be given to the capable railroad veteran in charge of it.

Station-master Peter F. McCann was born in the city in which he now fills so important a place, fifty years ago, and has been with the Lackawanna for thirty years. He began his employment with the road as brakeman in March, 1879.

Three years later he was advanced to conductor, and for seven years had charge of freight trains. He was then assigned to the pay-car as assistant to the general paymaster, which post he held for ten years.

In 1899 he was appointed station-master at Scranton, and has held the position ever since. He has had the good fortune never to be in any accident of a serious nature, nor has any man working under his personal direction been killed or injured.

BILL NYE - ENGINEER.

Less Famous Than the Humorist, but Not Less Capable, Was this Veteran of Lake Shore Rails.

WILLIAM H. NYE, though not having the claims to fame of his late well-known namesake, was equally capable in his line, being considered one of the best locomotive engineers in the East. Mr. Nye, who died some weeks ago, was for nearly forty years in the employ of the Lake Shore, for twenty-eight years as an engineer.

He was born in Peru, Illinois, fifty-two years ago. He began railroading while still in his teens, and almost his first experience in a cab was as fireman for his father. In 1880 he was promoted to engineer.

To Mr. Nye belonged the distinction of having run the last wood-burning locomotive on the Lake Shore Railroad. His last regular run was between Buffalo and Cleveland.

"UNCLE" DAN SIGNS OFF.

Ketchum Reaches Lake Shore Pension-Roll After Fifty-Three Years Travel.

FIFTY-THREE years of active railroading laid behind "Uncle" Dan Ketchum when he signed off after his last run, to rest on his laurels and a well-earned pension.

"Uncle" Dan was conductor on a Lake Shore passenger between Monroe, Michigan, and Adrian. He entered the service as a fireman on the old Michigan Southern and Northern Indiana.

Later he became an engineer, and in 1865 he went to the other end of the train and began his regular runs as conductor. A few months ago he celebrated his eightieth birthday, and is the sole survivor of the old war force.

HELPED OPEN THE WEST.

They Were Rough Days When Carrier Went to Nebraska, but the Spice of Life Was in Them.

FOR over thirty-seven years Courtland S. Carrier has been ticket-seller, operator, and agent for various railroads in Omaha. Mr. Carrier landed in Omaha in 1871, shortly after the Union Pacific opened its main line for traffic.

His railroad career began at Geneseo, Illinois, where he mastered the mysteries of the Morse code. Thus equipped, he had no difficulty in securing in Omaha a position as operator and assistant to the agent of the Northwestern and Rock Island.

In 1874 he went to the Union Pacific station as assistant to Joseph Bell, who was then agent. Those were the days of the great rush for the West, and the Union Pacific was the only railroad going West from Omaha.

It was pretty hard work. Ignorant immigrants, who spoke all kinds of languages and dialects, were trooping from all parts of the world to take a share in this Land of Promise.

A day's work meant from six in the morning to nine or ten at night. But they were lively and exciting days, carrying with them all the spice that days on the edge of civilization always do.

In 1884 he left the Union Pacific for the Milwaukee. A story of the manner in which Mr. Carrier made the change is told by the Omaha *Bee*. It was unique, if not regular:

"One day in 1884, Mr. Carrier, after a particularly hard day's work at the station, met J. K. Chambers, city agent for the Milwaukee road. Mr. Chambers remarked upon the *ennui* from which a city ticket agent suffers in midsummer, when business is slack.

"'Do you really want a good hard job?' inquired Mr. Carrier.

"Mr. Chambers said that was what he was looking for.

"'I'll trade jobs with you,' said Mr. Carrier. The half jest was carried out in earnest, and within a month the two men had traded positions. Mr. Carrier has been with the Milwaukee road since then.

"Mr. Chambers stuck to the Union station until his death, a few months ago."

Around the Union by Rail.

BY GILSON WILLETS,

Special Traveling Correspondent of "The Railroad Man's Magazine."

WE have come to the end of the second annual tour of Mr. Willets over the railroads of the United States. The journey that began in Chicago over a year ago ends this month in Washington. In the months that lie between we have covered nearly ten thousand miles of rail and have told scores of tales of the officers and privates of the railroad armies of the West and South.

As befits the capital city of the nation, the yarns with which this series ends are somewhat more varied and conventionally romantic than others which we have published. But they are no less "railroady," and this difference in their character but illustrates the great range and variety of the incidents in which the railroad plays a part.

No. 14.—TALES RAILROADERS TELL AT THE NATIONAL CAPITAL

Which Prove That Their Experiences Both Stir the Shallow Waters of Farce-Comedy and Sound the Deeps of Human Tragedy.

IT was at the "Railwaymen's Rest," a lunch-room hard by the new Union Station in Washington. Midnight was approaching, and trainmen belonging to the "owls" of five different railroads were perched on stools around the counter consuming hot coffee and cold beans.

At the rear, a small apartment was partitioned off from the lunch-counter by gaudy curtains bearing the sign "Colored." From that apartment presently emerged a man of ebony blackness and well along in years.

"It's Mose Lee," a Seaboard Air Line man said to me.

"Hallo, Mose," cried a trainman of the Southern. "How about that footprint of President Cleveland? Got it on you?"

The darky grinned broadly as he displayed a salt bag and gave us a peep at its contents—namely, sawdust.

"That's Mose's talisman," remarked a B. and O. trainman. "He believes no harm can overtake him as long as he carries that footprint of an ex-President."

"But where's the footprint?" I asked.

"Let me tell you," answered an Atlantic Coast Line man. "One winter day, Grover Cleveland, then President, passed through the old Pennsylvania Railroad Station in Washington on the

way to take a tram. Sawdust had been sprinkled over the ice that had gathered on the platform.

"Wherever Mr. Cleveland stepped he left a footprint. Mose, who was then employed in the station, gathered up the sawdust at one of the places where the President had trod, put it in a salt bag, and ever after called it 'the footprint of a President of the United States.'

"Mose, like all the colored employees on Southern roads, is superstitious. When he got too old for portering in the station, he was sent to the car yards to clean Pullmans, and he declares that if he hadn't had President Cleveland's 'footprint' he'd have been fired sure, instead of getting a car-cleaning job at one fifty a day."

Here the Seaboard man interposed, saying: "Now let me tell you the big story of the career of the superstitious Mose. He believes that once he saw a real live ghost. That 'ghost' of his is living to-day, and is known as 'The Hermit of the Dismal Swamp.'

The Hermit of the Dismal Swamp.

"Mose was holding down a job on the Seaboard's pay-roll at Portsmouth, Virginia. We had, too, a young fellow working there for us as agent, 'Silent Macaroni,' we called him. He was an Italian, who never spoke to any of us except on business—a superior, well educated chap, who carried himself like a prince or duke, and, out of hours, had Mose as a kind of valet.

'After 'Silent Macaroni' had been with us about two years, he surprised a group of railroad boys at Portsmouth one day by stepping up to them and saying: 'These Dismal Swamp of Virginia—how far from here these Dismal Swamp?'

"The boys told him ten miles, and he said: 'And no one leeve in these Dismal Swamp—no?' And he walked away without another word.

"That very night 'Silent Mac' disappeared, and for a week afterward Mose went around nosing into all sorts of places, looking for his missing 'marster' and honestly grieving for him.

"Two years passed, and everybody, even Mose, had forgotten 'Silent Mac,' when one day something happened that drove Mose out of Portsmouth forever. That day a conductor of our line was walking through a side street down there, when Mose came running up to him, his eyes bulging, perspiration pouring down his horror stricken features.

"He pointed to a man who was shuffling along in the gutter, picking up rubbish, which he put in a black leather bag. The man was in rags; long, matted hair fell over his shoulders; his face was covered with bushy, greasy whiskers. He looked like a wild man.

"'Yaas, sah, boss,' cried Mose, 'that sure is the ghost of mah marster. Ah've been speakin' to him, but he acts like he's deef and dumb. He's a spook. Come away, boss!'

"Our conductor looked sharply at the man in tatters, and recognized 'Silent Macaroni'!

"'Come away, boss,' pleaded Mose. 'It's bad luck to see a ghost in daylight.'

"Next day Mose resigned his post at Portsmouth and returned to his old job in the Pennsylvania Station in Washington. A year later the conductor whom Mose had implored to 'Come away,' carried a young Italian on his train out of Portsmouth, who said:

"'I've just found a friend of mine living in your Dismal Swamp. I want to tell you of him, because he was once employed on your railroad. You called him "Silent Mac," or something like that.

"'He disappeared, leaving no trace. Well, he went to the Dismal Swamp, built himself a hut on stilts, and turned hermit. He comes into Portsmouth occasionally to pick up what he can.

Penance for a Deed of Blood.

"'You wonder why he lives thus, like an animal, do you? He's a *penitente*, of the most fanatical kind. He is of good family in Italy; his name is Alberto da Rimini, his title that of count.

"'As an officer of the Italian army, he was on duty in the palace of King Humbert, in Rome. He fell in love with a girl of low station, and asked permission of the king to marry the girl, but was refused.

"'At that, he lost his temper and

spoke disrespectfully to the king. Humbert summoned soldiers, and ordered them to drag the captain from the room. He commanded, moreover, that the count be dismissed from the army publicly and in disgrace, and that he be deprived of his rank and stripped of his title.

"'But before the time set for his public disgrace arrived, Da Rimini went to his sweetheart and, in a rage, blaming her for all his troubles, shot her, leaving her, as he supposed, dead on the floor. Then he fled to France, and, finally, to America.

"'By chance, I heard that my old friend was here in Portsmouth, and one day I met him face to face on the street. He was picking up cigar-butts and orange-peel from the gutters. I spoke to him, but he pretended not to know me.

"'I followed him to his hovel in the Dismal Swamp, and there I told him that the girl he thought he had killed was still living, that he wounded her only slightly, and that, if he would return, our new king was prepared to pardon him and restore him to his rank in the army.

"'But my old friend only shook his head, pointed to the path leading out of the swamp, and said: "Nevertheless, I will do penance the rest of my life. Please go!"'

"And that," concluded the Seaboard trainman, "is the true way-bill relating to the former employee of our line whom people in Portsmouth call the 'crazy hermit of the Dismal Swamp.' It is, too, the true story of the man to whom Mose Lee always refers as 'a real live ghost, boss.'"

"'YAAS, SAH,' CRIED MOSE, 'THAT 'S RE IS THE GHOST F MAH MARSTER'"

Honeymoon or Moonshine!

The talk at the Washington "Railwaymen's Rest" turned upon experiences with honeymoon travelers.

"Most extraordinary honeymooners I ever had on a train of mine," said a Southern Railway trainman, "was a couple of moonshiners who had reformed. I was working, then, on the Louisville and Nashville, in freight, on the branch running up from Middlesboro, Kentucky, to Norton, Virginia. It was in December, 1895, and our division superintendent was Mr. Logson, whom some of you fellows know.

"One night Mr. Logson was working overtime at Middlesboro, when there appeared to him a young chap—Dave Gates, of the United States Internal Revenue Service.

"'Mr. Logson,' says Gates, 'I've got six men outside. We want you to take us up to Ewing and put us off at a secluded spot.'

"Well, to show you how ready a railroad officer always is to help the government, Mr. Logson replied: 'All right. You can have a private car, if you wish.'

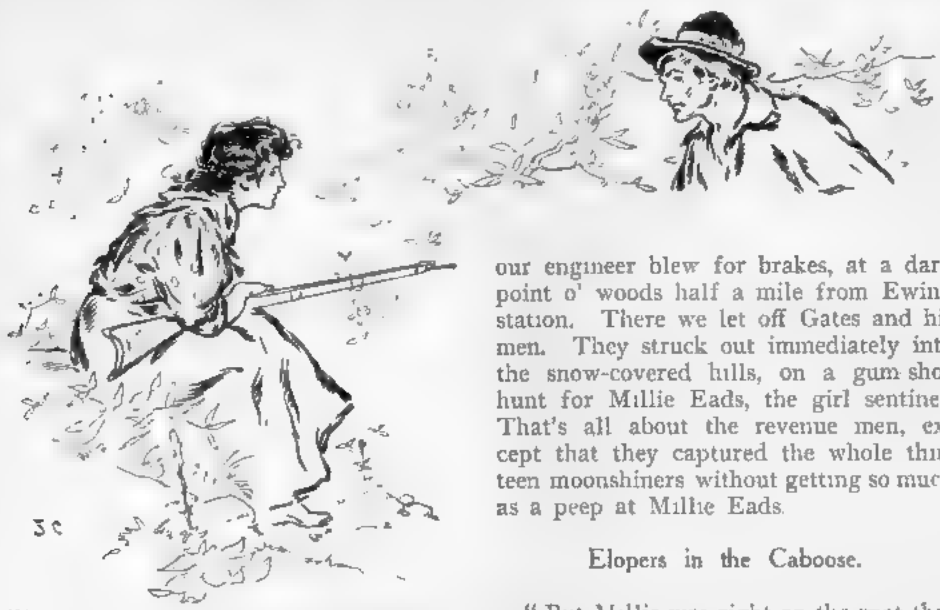
"'No! That won't do,' answered the revenue agent. 'I want to go up in a

freight-train, so the moonshiners I'm after won't suspect. They've got an idea that folks, even revenuers, as they call us, are not allowed to ride on freight-trains.'

"Half an hour later a freight-train, or a thing that looked like a real freight, consisting of a few empty cars and a caboose, pulled out of the Middlesboro yard, with Captain Gates and his six men in the empty next to the caboose. Before starting, however, Gates said to Superintendent Logson:

"'We got our information as to the location of thirteen moonshiners from a disgruntled member of the band. There's only seven of us to capture thirteen, but we're not doubting the result.

"'What really bothers us is a girl, the daughter of old man Eads, the leader of the gang. That girl, Millie Eads, is on the lookout to-night — at least, so we've been informed. She's a crack shot, can hit a squirrel in the eye, and the problem is to get by her without harming her and without giving her a chance either to harm us or to give warning to her father and his pals.'



"'WHEN I GOT TO WHERE SHE WAS DOING SENTRY DUTY, I GAVE HER A CHOICE BETWEEN CAPTURE AND IMPRISONMENT WITH HER FATHER AND HIS PALS, OR FREEDOM AND MARRIAGE WITH ME'"

"With two engines ahead to get us up to the tunnel under Cumberland Gap (I say 'we' because I was one of the trainmen, you understand), we finally got over the top of the mountain, let go one engine, and began dropping down the grade.

"About four o'clock in the morning our engineer blew for brakes, at a dark point o' woods half a mile from Ewing station. There we let off Gates and his men. They struck out immediately into the snow-covered hills, on a gum shoe hunt for Millie Eads, the girl sentinel. That's all about the revenue men, except that they captured the whole thirteen moonshiners without getting so much as a peep at Millie Eads.

Elopers in the Caboose.

"But Millie was right on the spot that night, nevertheless. That is, she was doing sentinel duty up to the time our train pulled up near Ewing. But before we started on, after dropping the revenuers, a young mountaineer came running up to the caboose.

"'Say,' he panted in an undertone, 'will you fellers hold this here train for me a few minutes? I was a moonshiner, but now I'm a honeymooner. I mean, I will be a honeymooner if you fellers will carry me down to Middlesboro. I know all that's going on here to-night, 'cause I'm the feller that give those revenuers the tip as to where to find the moonshine gang that's headed by the man I'm going to make my father-in-law.

"'Now, look here,' he went on, earnestly addressing our conductor, who was shaking his head, 'you listen to common sense. Your division superintendent, Mr. Logson, is this night using this railroad to help the government.

"'Superintendent Logson would want you to help Uncle Sam to the limit,

wouldn't he? All right, then! Wait for me a few minutes and take me down to Middlesboro on the first lap of my honeymoon, and your railroad will be helping the government, and Superintendent Logson will pat you on the back. But I must hurry—or I'll be too late. Wait for me'

"With that the mountaineer disappeared in the darkness. Presently we heard the cry of a screech-owl and the report of a gun. Then all was silent again.

"Our conductor, meantime, decided that it would do no harm to lay by a while and await developments. Inside of ten minutes our former visitor, the young mountaineer, reappeared, carrying a rifle and leading as pretty a mountain girl as I'd ever seen. He helped the girl on the caboose, jumped aboard himself, and said to our conductor:

"'Now, mister, you can drop back to Middlesboro as fast as you like. Give Eads and the gang time to learn what I'm up to, and you'll be helping the moonshiners and not the government.'

"We pulled down the line, turned the engine, and headed back for Middlesboro, the mountaineer meanwhile letting us into his secret.

"'Millie,' he began, 'you hold your tongue and let me do the talking. Gents,' he went on, addressing us fellows in the caboose, 'did you hear that cry of a screech-owl just now? That was me. And did you hear that shot? That was me, too. I was signaling to Millie Eads, here, to keep quiet and give no alarm, though she knew that the revenuers were close upon her.

"'When I got to where she was doing sentry duty, I gave her a choice between immediate capture and jail—me being the captor, intending to hand her over to the revenuers—the choice, I say, of capture and imprisonment with her father and his pals, or freedom and marriage with me.

"'She's got sense, Millie has. Her father's been standing between her and me for a year. And now I'm square with him. I gave the revenuers the tip as to where to find the old man.

"'They'll put him in jail, and Millie and me, as soon as you put us into Middlesboro, will hitch up. I reckon you ain't never carried honeymooners on a caboose before, have yer?'

"There's only this to add," said the trainman, in conclusion—"when we told Superintendent Logson about our honeymooners, he was so tickled that he sent for the young mountaineer and gave him a good job on the division. Yes, sir, I've had many a honeymoon couple on trains I've worked on, but those honeymooners that rode with us in the caboose on the night of that raid on the moonshiners were about the strangest I've ever heard of on any railroad."

Told by the News-Butcher.

Said a Pennsylvania man with whom I walked back to the Union Station, after the midnight supper at the "Railwaymen's Rest": "Those friends there at the beanery loaded you up with the part that sweethearts play in the railroad drama. But their yarns were childish prattle compared to the one I'm going to put you next to.

"Come around to-morrow morning and I'll give you a knock down to a news-butcher who'll tell you about an affair that would make a howling success as a melodrama, a yarn that's got the stories told by our friends at the beanery spiked to the switch."

Next morning, accordingly, I was given the "knock down" to the "butch" in question.

"Last fall" (1907), said he, "I was unloading candy and peanuts and novels on the traveling public on Lake Erie and Western trains. On a certain night in October, when my train was running through Indiana, near Rochester, we got the emergency jolt; the wheels slid along the rails, and everybody wondered what was up

"I hopped off with the flagman and rushed up the track, to find section-hands clearing away a lot of ties that had been piled on the rails. Well, sir, I knew we were up against the work of train-wreckers, and that the passengers and crew on our train had had a mighty narrow squeak.

"Everybody was wondering who had tried to do the job, when I caught sight of a girl standing near. She was throwing unkind remarks at a certain young

section-man, who was tall and strapping and handsome, and looked like the pictures of heroes in the books I sell to boys.

"Likewise, the girl looked just like the three-color picture of the heroine on the cover of a best-seller. She was handing out conversation to the tall and handsome chap something like this:

"'Knew this'd make you show up, Joe. Why didn't you come to the house when I sent for you? You will ignore me, will you? Well, now, I've got you where you'll have to listen to me.'

A Clue to the Culprit.

"And then the girl handed out more talk, from which it was dead easy to guess that the tall and handsome chap had been spoony on her, but had ceased his courting and had ignored all the girl's pleadings to come back and be forgiven.

"Meantime, from one of the section hands I learned that the girl's name was Iva Wagerman; that she lived with her father, near by; that she was only seventeen; and that she was in love with the tall and handsome chap to whom the section-man referred as 'Joe yonder.' 'But Joe yonder is mad at her for something,' the section-man added: 'Just a lover's quarrel, and now she's giving him the dickens.'

"When we got to our division-end, that night, I went to one of our secret-service men there—a special agent, you know—and I says to him: 'Jimmy, if you're detailed on this case, get a knock-down to the girl called Iva Wagerman.'

"Well, sir, three men were detailed on that case, and among 'em was Jimmy. He didn't say a word to the other sleuths about my tip concerning the girl, but just went down to Rochester, Indiana, and got busy on his own hook.

"About two weeks later my train was held up at the water-tank on the same section where the attempt to wreck us had been made. I saw the same section-man who had told me about Iva Wagerman and the tall and handsome 'Joe yonder,' and asked how that particular love affair was progressing.

"'It's off,' was the reply. 'Miss Wagerman's got a new steady. Stranger in these parts. Calls more'n two nights a week on the gal. Folks says they're engaged.'

"'A-ha!' I remarked to myself. 'It's Jimmy, I'll bet a hat. He's courting the girl to get her confidence.'

"And, say, the girl really did confess to Jimmy—said she had tried to wreck the passenger express in order to see Joe. Her idea, it seems, was that, when the smash came, Joe would have to show up to clear away the remains. It was the only sure way she could think of, she said, to get a chance to speak her mind to him.

"Jimmy arrested her. Think of that! Arrested a girl he'd been making desperate love to! But railroad sleuths have to do those things. The magistrate made it out a case of 'unbalanced mind' against Iva, and sent her to an institution for mental treatment.

"No! That's not all. There's one more chapter. The girl was cured, and Joe and Jimmy became deadly rivals for her heart and hand. But right here I've got to tell you that this is an unfinished story. I don't know the last chapter, but it'd make a corker to sell on the trains, wouldn't it?"

The Letters That Never Came.

"Speaking of railway cops," said a railway mail clerk at the post-office in Washington, "I know of an incident wherein the laugh was with the cops and on our own post-office inspectors. I want to say, first, that dishonesty on the part of railway mail clerks is very rare. When mail disappears, therefore, on any of our runs, inspectors go after the culprits good and hard, for the sake of the rest of us.

"Well, on our Pittsburgh-Indianapolis run, a few years ago, complaints by the score came in from people whose letters containing money had disappeared. A certain clerk was suspected, and the inspectors watched him.

"Presently he dropped his run for two weeks. During that time, nevertheless, the disappearance of letters continued the same as before, for the complaints poured in during every one of the fourteen days of his absence.

"The consequence was that the post-

office inspectors dropped the clerk's trail and actually apologized to him, and requested him to help in running down the right man.

"For three years letters, hundreds of them, vanished on the Pittsburgh-Indianapolis run. All the while the inspectors were right on their jobs, and each time their clues led them back to the clerk they had first suspected.

"But each time that cute clerk would throw them off the scent by laying off for two weeks, during which time we invariably received the usual number of complaints regarding the non-delivery of letters containing money, all on that same run from which he was laying off.

"At the end of the third year of fruitless effort on the part of the post-office inspectors, a traveling railway cop of the Pennsylvania system, a man named Vrooman, took a hand in the game. Vrooman laid for the man so many times suspected, until the clerk took another of his periodical vacations.

"During that fortnight, Vrooman never lost sight of his man day or night. The very day the clerk returned to his run, Vrooman nabbed him at the station at Indianapolis. The clerk was leaving his car, carrying a lunch-basket, when Vrooman stole up behind him, grabbed the basket, and found that it contained a number of letters, many of which were

"SHE WAS THROWING UNKIND REMARKS TO A YOUNG SECTION-MAN WHO WAS TALL AND STRAPPING AND HANDSOME."

subsequently discovered to contain money in considerable amounts.

"Vrooman marched the clerk off to a post office inspector, one who had been long on the quest, and remarked casually: 'Here's your man.'

"'But,' expostulated the crestfallen inspector, 'he can't be the whole show. There are others; because, whenever this chap laid off, letters continued to disappear the same as when he was on the run.'

Covering His Trail.

"'No, no letters disappeared when this man was off duty,' complacently replied the cop.

"'But we got no end of complaints during each of his vacations,' the inspector argued.

"'Of course you did,' agreed the spesh. 'He wrote them himself. You never thought of that, eh? But I found that during his vacations he frequented various offices where typewriters were to be rented.

"'Why? I asked myself. I soon got a satisfactory answer. Under pretense of trying a machine—a different machine each time—this fellow would write letters complaining that mail of his had not reached its destination, each time signing a different name in a different handwriting.

"'That's what fooled you. You won't get any more complaints from letter-writers on the Pittsburgh-Indianapolis run, because this is your man and he's the whole gang.'"

Fat engineers on the Pennsylvania Railroad at Washington, at the time of my sojourn there, were having their troubles.

"Last year," they said, "we were too old—only youngsters were wanted. This year we're too fat—only thin men are in demand. What next?"

It was all because of the brand-new engines, the heaviest on the line—the type known as H-8. In those new locomotives the space between the cab and the boiler was too small for any engineer weighing over a hundred and fifty pounds or so.

Not one of the many fat engineers employed by the Pennsylvania could do his work properly on an H-8, because he simply could not get at either the reverse lever or the throttle without danger of apoplexy or strangulation.

When the two-hundred pounders set up a howl to the effect that the working space should be widened, superintendents of motive power, master mechanics, road foremen of engineers, and traveling engineers replied that the space could not be widened without increasing the clearance of the locomotive beyond the limit of safety.

"I'll never forget the experience of the first engineer assigned to the first of these H-8 engines," said an aldermanic engineer of the Pennsylvania at the Union Station. "My friend's name was William Winfield—'Big Bill,' we call him, because he tips the scales at about the same angle as Secretary Taft.

"Well, Big Bill got orders to take out the new H-8 and run it out Enola way. Bill squeezed into the space allotted to him and started. Then for two hours he held up traffic, for two mortal hours he struggled with throttle and reverse lever, utterly unable to do his work properly.

Engineers Too Big for the Cab.

"Of course, he had to give it up. After a hundred and twenty minutes of sweating and swearing and trying to compress his Taft avoirdupois into a space suited only to Vice President Fairbanks, Big Bill stopped the H-8 as best he could, jumped off, went to the foreman of the roundhouse, and demanded:

"'You got any half-starved, emaciated freaks around here? What that new engine needs to run it is a living skeleton. That's a thin man's job, and you don't get me in the cab of an H-8 ever again.'

"A thin man, a very shadow of an engineer, was put on the H-8 in Big Bill's place, and the delay to traffic was at an end.

"But we fat engineers know the H-8 has come to stay. So we've cut out milk and oatmeal and potatoes, and are dieting like prize-fighters or jockeys. We're doing the punch-bag act, and we're pulling our arms out by the roots with dumbbells, and we're swinging Indian clubs and exercising, and we're nearly tired to

death. 'The only song I know is, 'Please go 'way and let me sleep.' I've just been forty-two times around that rubber-carpeted running-track at the gym at the Y. M. C. A."

A Railroad Bronco-Buster.

At Richmond I met an old railroad man who had once been an engineer on the Nashville, Chattanooga and St. Louis Railway, and whose opening remark was:

"Worked for that road for a time as a railroad bronco-buster."

I was curious as to the meaning of "railroad bronco buster," and said so.

"A railroad bronco-buster," replied the old railway man, "is an engineer who makes a specialty of busting, or breaking in, new locomotives; or, what's still harder business, breaking in old engines that have been overhauled.

"Our work may be compared to that of the bronco buster of the ranch. We test a new engine—try it out, train it to the saddle, as it were; make it eat from our hand; stand without hitching; go all the gaits. All this is necessary when a new engine is delivered to a railroad company.

"Once I was breaking in an engine on which I stacked up against the most dangerous defect a railroad bronco-buster can encounter—an engine on which the throttle had become disconnected. I couldn't stop, of course, in the ordinary way. So I applied the air.

"Even the air wouldn't work, and then I knew I couldn't stop at all. She was running away with me, exactly like a runaway horse.

"There was nothing to do, then, but let her run dead, which I proceeded to do by opening up every darned avenue for steam to escape. I blew my whistle, notifying all hands to get from under, and you should have seen passenger and freight-trains skiddoo to sidings.

"We sailed along all right for five or six miles, till my runaway shot over the top of a long grade she'd just climbed, and there, not half a mile away, was the crack passenger-train of the line. I whistled, and I could see the engineer of that train leaning far out of his cab, sizing me up.

"I knew his thoughts when he saw me coming after him like my engine was a wild horse that had just jumped the corral fence. He was thinking what would happen to the hundred or more passengers in the five coaches he was pulling if he didn't crowd on all kinds of steam and get out of my way.

"The next minute I could see that he was letting out his for all she'd stand for, to try to outrun me. But, despite all his efforts, I gained on him till I wasn't more'n a quarter of a mile behind. Before we got to the jumping-off place, where the track dropped downhill again, I was within a furlong of his rear car.

"We were rolling down a regular toboggan of a grade, both of us going helter-skelter. It was a grand race, you can just bet! He had the advantage of me, for whereas up to now his heavy train had held him back, that very weight now served to take him down the hill so much faster than my own light engine could run that he gained on me every second.

"Proceeding with Caution."

"But, holy smoke! what was up now? A watchman, whom I could plainly see, was standing by the track dead ahead of the train, waving a green flag. It meant, 'Proceed with extreme caution.' But how could the engineer in the passenger-engine 'proceed with extreme caution' while I was right on his heels, threatening to telescope him?

"Have you guessed what was doing? That green flag meant, practically, 'Dangerous track! Look out for a slide!' For this happened at the time of the spring thaw, and at certain places on that steep grade the tracks weren't none too solid at that season. Several trains had been ditched on that very grade by reason of the rails slipping right out from under 'em.

"Did that passenger engineer 'proceed with extreme caution'? Not a bit of it. He hiked by the man with the green flag at a gait that broke all the rules into little bits. Between the two dangers, I reckon he thought he'd chosen the lesser, namely, the risk of a slide. And he was dead right, too. He escaped *me*.

"Think that ends the tale? No, sir! He escaped my runaway, but I, the helpless driver of that runaway, awoke to find myself lying in a ditch and covered with the mud of Tennessee, while that blamed engine that I had been bustin' was busted for fair — sunk up to its driving rods in soft, oozing red earth, and showing that she'd need a repair-shop before she'd need any more breaking in.

"You catch on? The dead weight of that crack passenger-train running by the soft place had loosened everything for me. When I came along, the whole right of way slid from under me, and me and my fireman came near making business for the insurance departments of our respective brotherhoods. That new engine I was bustin' ran dead, all right, only it was a little ahead of the schedule.

Not the Fault of 188.

"The crack railroad bronco-buster in Dixie to-day," continued the old railroader of Richmond, "is Jack Miller. He's doing my specialty on my old road, the N., C. and St. L., out of Chattanooga. Jack recently had a fierce time with a new locomotive, a big consolidated freight-engine, Number 188.

"He simply couldn't keep that engine on the track, and it took him several days to find out why. Over there at Chattanooga, my old road has a trial track about three miles long. Jack hitched Number 188 to a load of a thousand tons and started off over the trial track. He had got up to about five miles an hour when—thud! the engine went off the rails.

"Jack was mad. He'd never had such a thing happen before. He possessed all that peculiar sixth sense of an engineer, the mechanical sense, that is so highly developed an experienced man can detect the smallest defect in an engine, even with his eyes shut and his ears stuffed with cotton.

"Not a darned thing was the matter with the interior mechanism of that engine, and Jack knew it. She wasn't even overheated, and that's the principal thing to look out for in a new engine.

"At the second and third trials, the engine left the rails just as at the first try, and Jack was sure puzzled. Then an inspiration came to him. He noted that the engine left the track each time at a certain curve.

"He got down on his hands and knees and measured that curve. Then he spent an hour measuring Number 188. Then, looking very knowing, he went to the district engineer, saying:

"'That new engine is broken in all right. The fault is with your darned old curve. Your curve is too short; the new engine is too long and heavy for it. You'll have to lengthen the curve before you get me bustin' any more consolidateds on it.'

"The curve was lengthened; and at the first trial with Number 188 over the new tracks, he steamed up to a twenty-mile gait and slammed her around the curve. She took it without a stagger.

"So much for railroad bronco-bustin'," that gray-haired railroader went on. "Now let me tell you a more human story of a happening on that same old road of mine, the N., C. and St. L. Once I was down at Dickson, Tennessee, breaking in new engines, when I had occasion to go to the freight shed.

"There I found a lot of negro freight-loaders, sort of roustabouts, pushing hand-trucks, under the direction of an old Confederate soldier. As I stood watching the busy scene, I heard the old soldier say to his roustabouts:

Playing Cards with Cars.

"'Load that cotton in the queen of hearts. Put that sugar aboard the ace of spades. Take this broom-corn to the jack of diamonds. Rush that molasses to the king of clubs. Carry this fruit to the joker—' and so on, each time naming a different playing-card.

"Whereupon I inquired what kind of a game was going on there. The old soldier pointed to the freight-cars on the near by tracks, and what do you think I found? On each car was tacked a different playing-card!

"'These roustabouts,' said the grizzled Confederate, 'ain't up in reading either car names or numbers. So I use this system of indicating the different cars by means of playing-cards. The result is

that the roustabouts never make a mistake.

"'These negroes put in all their spare time playing seven-up, and they can spot a car bearing any one of the fifty-two cards in a deck as far as they can see it. Colonel Lefferts is my name, sir.'

"'Colonel Lefferts,' I said, 'permit me to remark that you certainly are an ingenious cuss, sir.'"

Colonel Lefferts was not, of course, the inventor of the system of designating freight-cars as described. For many years previous to the time of his service at Dickson, cars had been designated in this manner in the Southern States at places where negroes were employed as loaders. The writer, while in Mississippi and Alabama recently, found that to this day, at certain railroad points in those States where colored men load freight, cars are marked with playing cards for the guidance of the illiterate.

"'YOU GOT ANY HALF-STARVED, EMACIATED FREAKS AROUND HERE? WHAT THAT NEW ENGINE NEEDS TO RUN IT IS A LIVING SKELETON.'"

"'I've been hereabouts,' Colonel Lefferts said, 'ever since we fought the colored Federal troops here during the war. Those troops, sir, were encamped right on the spot now occupied by these railroad yards. Those colored soldiers died by the score, and were buried, two or three at a time, in graves that were not over three feet underground. Yonder, at that culvert, where the refuse from the engine-house runs into the ditch, was the cemetery.

Ghosts in the Freight-Yard.

"'Ever since that wholesale burying, sir, on a certain night in the year—this very night, sir, the 7th of June—the ghosts of those black soldiers come out of their graves and dance a cake-walk to music furnished by bone-clappers.'

"'Bosh!' I exclaimed.

"'No, it ain't bosh,' the colonel insisted. 'You come around to-night, at midnight, and I'll warrant I'll make you hear the bones a knockin' and a clappin'.'

"I agreed, just for fun, and at midnight Colonel Lefferts took me to the mouth of the culvert. We listened; and presently, sure's I'm living, I really heard the clackety-clack of bones. It sounded like I was listening to a minstrel show. They clacked a rag-time, too.

"'And if it weren't so all-fired dark,' the colonel whispered, 'you could see the spooks of those colored soldiers doing the cake walk.'

"The bones continued to rattle, and I was honestly puzzled. But, having no faith in spooks, I told myself, at last, that the thing was impossible, that this was some practical joke arranged by the colonel.

"Just then, however, the clack of bones multiplied and swelled to a vol-

ume that sounded as though all the members of a big minstrel troupe were playing their hardest.

"'Had enough?' the colonel asked. 'Is it bosh, hey?'

"'It's on me, colonel,' I replied, turning away, while the bones continued their deafening clatter, as though all the skeletons in the burying-ground were dancing an unholy break down.

"WE'RE PULLING OUR ARMS OUT BY THE ROOTS WITH DUMB-BELLS, AND WE'RE SWINGING INDIAN CLUBS, AND WE'RE NEARLY TIRED TO DEATH."

"Then the colonel blew a whistle. The clapping ceased, and the place became as silent as a tomb. Then voices, deep, lusty negro voices, burst into a plantation melody, and the colonel dug me in the ribs, saying:

"'Of course it's on you, you bronco-buster. The bones were in the hands of twenty of my roustabouts. The entertainment will cost you several watermelons. I've caught no end of railroad men in this trap of mine in the last ten years.'

"'Colonel Lefferts,' I remarked, 'permit me to repeat that you are an ingenious cuss, sir.'

"I paid for several watermelons and sent them to the roustabouts," my Richmond friend resumed. "And while the darkies got into the melons, Colonel Lefferts and I had a night cap at his house. I sat till daylight listening to tales of railroading in Dixie during the Civil War."

When the Seaboard Air Line train, in which I traveled from St. Augustine to Richmond, drew into Hamlet, North Carolina, I was sitting in the observation-car, talking to a traveling auditor of the line.

"From here our road runs a branch up to Charlotte, through Polkton," he said. "It was on this branch that Charlie Burns earned the title of 'Santa Claus Charlie.' It was an episode of Christmas, 1907. Hundreds of children, for scores of miles around Polkton, gave thanks for the merry Christmas that 'Santa Claus Charlie' had brought them.

"Near Polkton our tracks run over Brown's Creek on a trestle six hundred feet long. Along that creek, and on other streams that empty into it, live many very poor families, both white and black.

"One day last December, Engineer Charlie Burns, pulling freight as usual, was held up near Brown's Creek while workmen repaired a weak place that had just been discovered in the long trestle. While his train waited, a troop of ragged children approached, and Charlie said to them:

"Santa Claus Charlie."

"'What you kids want Santa Claus to bring you?'

"'Santa Claus never comes to our houses, never brings us nothin', even though we pray and pray for Noah's arks and things.' So replied one of the boys in the troop.

"'Well, kids,' said Charlie, 'you-all just pray some more—pray right smart, and perhaps Santa Claus won't forget

you this Christmas, like he's been doing in the past.'

"Now, Charlie didn't mean anything in particular by that remark; just said it for the sake of jollying the kids. But a few nights before Christmas, Charlie was running his south-bound freight at a thirty-mile clip toward Polkton and the trestle over Brown's Creek. Two or three cars on his train were filled, as he knew, with Christmas supplies — toys, picture-books, Christmas-trees, and all that sort of thing. And the thought in Charlie's mind was:

Toys on the Face of the Waters.

"'Wouldn't those kids here on Brown's Creek love to have just one of these car-loads of toys!'

"Just then Charlie ran onto the Brown Creek trestle. To cross that six hundred feet of bridge was the work of only a minute or two, but before he got to the other side there came a crash, a bang, and a splash.

"The trestle had collapsed, and a lot of freight-cars dropped into the creek and were smashed open, scattering their contents over the surface of the water. Both the engine and the caboose stayed on the track, and neither Charlie nor any of the train-crew was even scratched. It was a bad wreck, however, in the sense of delaying traffic, for not a train got over Brown's Creek till after Christmas.

"To Charlie fell the lot of taking the first train over the reconstructed trestle. His train stopped near the structure while workmen made a final inspection, and during that wait the same troop of ragged children that Charlie had told to 'pray right smart' now came up to him, crying:

"'We prayed right smart, and we want to thank you for answering our prayers, Mr. Santa Claus.'

"'What's ailin' you kids, anyway?' asked Charlie.

"Just then he noticed that each of the children carried some sort of toy. One had a Noah's ark, another a Teddy bear, a third a toy locomotive; and among them the contents of their arms represented a large part of toyland.

"'Oh!' exclaimed Charlie. 'I see!' And he climbed back into his cab and proceeded across the newly repaired trestle. Not a dozen children, but hundreds, living on Brown's Creek and its tributaries, had had a merry Christmas, all because, as they believed, 'Santa Claus Charlie' had answered their prayers.

"Among the cars that went into the creek and broke open, on the night of the wreck, were the two or three cars filled with Christmas supplies. And lo! on the face of the waters, for miles upon miles, were Noah's arks and Teddy bears and candy canes and picture-books, and the hundred and one things that children want from Santa Claus.

"There, floating up to their very doorsteps, as if by magic, came toy after toy to the children of Brown's Creek. The ragamuffins, white and black, of that region had never in all their lives known such a joyous Christmas.

"When Charlie Burns mounted his engine that day, and the children thanked him and called him 'Santa Claus,' he said to his fireman:

"'Ike, that was a right smart mean wreck you and me went up against on this trestle the other night. We might have been crushed or burned or drowned —and yet I'm mighty glad we had it.'"

A Guide with Stories to Tell.

At the office of the *Evening Star,* in Washington, I was in the business department one day when a guide came in leading a party of tourists. He jerked his thumb at the beautiful frescoes on the marbled walls, talking a blue streak; and, what was unusual, he made his "customers" laugh.

"That chap's got all the other guides in town skinned to death," said a friend of mine, a *Star* man, who was standing by. "He hands out the capital bunch of Capital talk.

"You ought to annex him. He meets people at the trains at our new Union Station. Go up there to-day when the Congressional Limited comes in and introduce yourself to Timothy Hare. He'll load you up with real-life yarns."

I took my friend's advice and sought out Timothy Hare. After a little preliminary sparring, he launched forth on a flood of discourse:

"Great day we had here in this station last November, when it was first opened. Red letter day for me, too, wondering who would be my first customer in this finest station in the country.

"First train in was Pennsylvania train Number 79, at 7.12 A.M., in charge of Engineer Charlie Forbes. Forbes brought me my first customer, a professor from some State college out West.

"That professor had his wife with him—a very Juno of a woman, looking like one of them goddesses painted on the walls over at the *Evening Star* office. I always take tourists in there to see those goddesses, because those painted ladies remind me always of the wife of that professor, the first customer to come to me with the opening of this twenty-million-dollar station.

The Face in the Mirror.

"It's a tale I can't explain. Won't try to. If you want explanation, you'll have to apply to spiritualists, or newspaper men, or somebody who makes a study of things nobody else knows anything about. All I can tell you is plain fact, just as the professor gave it to me.

"My professor said that he was revisiting Washington on a peculiar errand—a sentimental pilgrimage, so to speak, for it was here that he had his first look at the goddess who was to become his wife. He said that, while in Washington, he boarded a certain midnight train for New York, at the old Pennsylvania station. He entered his sleeper, found the berths all made up, and turned in immediately.

"As he was taking off his collar and tie, he happened to look in the mirror—the one you usually find between the two windows in a section of a standard sleeper. A single ray of light from the gas in the aisle streamed in through an opening in the curtains and fell directly upon the mirror. By this light, so the professor said, he saw the reflection of a woman's face in the glass.

"He was surprised, of course. He looked hard, rubbed his eyes, and looked again; yet there, in the mirror, was still the reflection of the head of a beautiful woman. It was the head, he said, of a pronounced brunette—raven tresses done up in the fashion of the day; eyes of night, with a hint of flame in 'em—so the professor said; olive skin and cheeks tinged with the hue of roses, and a full, rounded throat, around which was a necklace of blood-red rubies. She sure must have looked like a queen or a goddess, from what the professor told me.

"The professor was fairly hypnotized. No; he said he was petrified. Guess he meant paralyzed. He flung open the curtains and looked to see if the woman of the reflection was standing in the aisle. But not a soul was visible anywhere in the car. All the curtains to the berths were closed.

"Then the professor looked steadily away from the mirror while he continued preparations for turning in. When at last he was ready to lie down, he ventured to glance into the mirror again. The woman's head was still there, just as at first. There was the reflection staring him in the face, eyes wide open, head immovable and carried as queenly as before.

"In the interval during which he had looked away from the mirror, he told himself that the thing was an optical illusion. But now, when, after a lapse of several minutes, he saw the reflection again, he was ready to believe any old thing—and right there he let fly at me talk that sounded like whole pages from a text-book on psychology. Anyway, I couldn't understand it.

Haunted by the Vision.

"All I can tell you is that he laid down and went to sleep, dreaming of the brunette Juno in the mirror. When he awoke in the morning, the first thing he did was to sit up and take notice of that mirror.

"Would the face be there still? Yes; dog-goned if it wasn't still on view, and still smiling at him, for I forgot to tell you that the lips of the lady of the mirror were curved in a smile that wouldn't come off.

"The professor dressed and, after another look at the mirrored loveliness, left the car. When the train pulled into Jersey City, he got off and walked aboard the ferry-boat like one in a trance, so he told me.

"In New York, he drove straight to a hotel and went to bed. You see, he thought he was suffering nervous breakdown and needed rest. But he couldn't rest. He laid awake all day, thinking of nothing but the face of his Juno in the mirror in the sleeping-car.

"Toward night he hit upon a plan that he believed would rid him forever of the illusion that was tormenting him. He would go straight back to Washington on the midnight train of the Pennsylvania, if he could make sure that it would contain the same car he had slept in the night before

"As midnight approached he hurried over to Jersey City. He hadn't had a thing to eat all day, and he was pale and trembling and feverish. He had been careful to secure the same berth that he had ridden in the previous night, and his idea was that he could look in that mirror again and find that the lady had vanished, and so put an end to his torture of mind.

"When he boarded the car he found that all the berths had been made up, same as in Washington the night before. He started down the aisle—and at the same moment a woman started up the aisle from the opposite end of the car. At the section the professor had occupied the night before—he had lower seven—he and the woman came face to face.

"With his mind wholly occupied by the face which he hoped he was now about *not* to see, he did not so much as glance at the woman confronting him in the aisle. But, just as he parted the curtains to get his first glance at the magic mirror, he heard a voice saying:

A Still More Dazzling Vision.

"'Pardon me, sir, have you lower seven? There must be some mistake, for I have it also.'

"HE GOT DOWN ON HIS HANDS AND KNEES AND MEASURED THAT CURVE."

"The professor looked at the speaker, and dog-gone if it wasn't the woman whose face he had seen in the mirror, the self-same black hair, same eyes of night, same olive skin, same American Beauty cheeks, and around her neck was the identical necklace of blood-red rubies. And, what's more, there was the identical smile.

"The white-faced, palsied, fever-stricken professor studied the woman's face so long and intently that she laughed nervously and asked:

"'Pardon me, sir, but are you ill?'

"'Ill?' blurted out the professor. 'Yes! Very ill. Madam, the berth is yours. And I am ready to believe that it was you, or your spirit—your shadow-self—and not I, who occupied this berth only last night.

"'I crave your indulgence, madam, for a seeming lunatic, but I have a most re-

markable story to tell. This train will not start for twenty minutes to come

"'Would you be so kind as to step to the platform with me, where I can tell you my story before the train starts, and without disturbing those already asleep in this car?'

"The lady graciously complied with the professor's most extraordinary request. As they paced the platform, he told his Juno—not now a Juno of the mirror, but a goddess of flesh and blood—all that I've told you, and more.

"That's all I need to tell. They were married in time, and with my own eyes, on the day this station was opened to the public, I saw the wife whom the professor had secured in such a strange and unconventional way. That goddess, that Juno, was a creole from New Orleans, one of the dog gonedest beautiful women I ever piloted around the Capital."

Switching to another track, without giving me a chance even to signal that I wished to ask a million questions about the professor and the mirror and the lovely creole, the torrential speech of the guide flowed on to this

"Tell you a crackerjack of a story that I got in the old station of the Pennsylvania, here in Washington. Once, when I was on the lookout for customers, Hermann, the great magician, came through and boarded a train for New York. He was followed by Clara Morris, the famous actress.

"What took place between those two entertainers on the train, I heard afterward. It was this:

How Hermann Won His Bet.

"On the way up, Hermann said to a friend he met in the parlor-car: 'That lady, three seats up, the one wearing the Gainsborough, is Clara Morris. I've never met her in my life, but I'll wager that she'll take lunch with me on this train.'

"THE PROFESSOR LOOKED AT THE SPEAKER, AND DOG-GONE IF IT WASN'T THE WOMAN WHOSE FACE HE HAD SEEN IN THE MIRROR."

"Bets were made, and presently Hermann went up to Clara Morris and introduced himself. She treated him mighty haughtily, not asking him to be seated, not bending a bit, yet chatting with him. Of a sudden she exclaimed:

"'Why, I've lost my watch! I wore it on this chatelaine, and I had it on when I boarded this car. Now it's gone.'

"Then, with a swift, knowing glance at Hermann, she added: 'Ah, Mr. Hermann, I fear it is the magician who has caused my watch to vanish.'

"'Not so, Miss Morris,' Hermann denied. 'I regret that you should think me guilty of such a liberty.' And with that he began hunting for the lost watch On his very knees he searched the floor, pried into the secret places of the upholstered chairs round about the actress, till at last, so earnest did Hermann seem in the quest, Miss Morris cried:

"'Let us drop the hunt, Mr. Hermann. Probably I lost the watch before I boarded the train. Sit down, and let us talk of more important matters.'

"Thus the ice was broken, and Clara

Morris's hauteur vanished. And the 'more important matters' that Hermann caused her to discuss included the matter of a little luncheon in the dining-car. Miss Morris accepted his invitation, and the magician won his bet.

"But there's a little more to this story. When they took their seats in the diner, Miss Morris said she would be quite satisfied with a glass of milk and a chicken-sandwich. The sandwich was forthcoming, and when she opened it—lifted off, that is, the top slice of bread, what do you think she found there?"

"The watch, of course," I said.

"No!" replied the guide. "Chicken."

Next month we start forth at Mr. Willets's heels in his third annual tour over the railroads of the United States in the interests of THE RAILROAD MAN'S MAGAZINE. This trip, beginning at Boston, leads straight across to Chicago, to St. Paul, to Butte, down to Salt Lake City, thence to Los Angeles, and back to Texas and Oklahoma over the Southern Pacific. It will be worth taking. We intend to call the series "Riding the Rail from Coast to Coast."

IS THIS THE LARGEST POWER-HOUSE?

Nobody Claims That It Is, but It Probably Has as Good a Title as Have Some of the "Oldest Locomotives."

FOR the "Road of Anthracite" to sustain its reputation it is necessary for it to keep its coal-mining department on the most scientific and up-to-date basis possible, and anthracite mining is becoming increasingly difficult as the accessible veins become exhausted. The Lackawanna has recently installed the finest power plant in the anthracite region, and probably one of the finest in the country, at Keyser Valley, in the outskirts of Scranton, Pennsylvania.

The new power plant supplies steam to five collieries, and electricity to fifteen, with a daily output of twenty-five thousand tons of coal. One of these collieries is three miles from the plant. The nearest is only a few hundred feet away.

Three hundred tons of coal are required to feed the boiler fires daily to produce the regular working day capacity of ten thousand horse-power. During one month 187,695,700 pounds of water were turned into steam.

The water system that supplies the boilers would be a creditable possession for a good-sized village. The water is brought from West Mountain, near-by, and flows into a reservoir holding 750,000 gallons. Before it reaches the boilers it is fed through a series of economizers, which bring it to a temperature where little more is required to convert it into steam.

The feeding of the fires is also automatic. The system is similar to that employed in automatic stoking in many plants, differing only in the stupendous size. A belt-conveyer, carrying coal from a concrete bin, trips automatically at each chute in turn in the row of boilers.

An interesting item descriptive of the economy of the arrangements is the manner in which the ashes are disposed of. They fall from the fire-boxes to a sloping tunnel.

Water from one of the near-by mines is pumped into this tunnel and the ashes are washed through a bore hole leading to some abandoned workings in another part of the mine. There they pile into a mass, and when the water drains off, become solid, thus taking the place of the coal in supporting the workings.

When enough pillars of this material have been formed, the "robbing" may commence, that is, the good coal left in the workings can be taken out with safety.

The electric-power plant is on just as large and as wonderful a scale as the steam-plant. One side of the power-house contains five 500 kilowatt Curtis turbines, with direct connected alternators.

The turbines make 1,800 revolutions a minute, and generate a current of 2,300 volts. An Allis-Chalmers turbine coupled direct to a 2,000 kilowatt Bullock generator supplies a similar voltage.

The current, which is sent out through overhead wires, lights the mines and breakers and runs all the electric locomotives in the neighboring mines. It also lights the passenger station in Scranton and the railroad shops there, this being the only respect in which the Keyser Valley plant is devoted to other work than that of mining coal.

DUGAN'S SUBMARINE FUSEE.

BY C. P. GRENEKER.

Only the Inventor Believed in It, but He Proved His Faith to the Uttermost.

NUMBER TEN was running fifteen minutes late from Pittsburgh to Washington. The western connection had been delivered on time; but there seemed no end of express parcels, and even the mail was heavier than usual.

The holidays were not far off, and everybody on the N. and P. took delays for granted, even to the general superintendent. It was Ben Sands's first run as conductor on Number Ten, and he wasn't in the best of humor over the loss of time.

"Tickets! All tickets!" he cried, pushing his way from the baggage-car into the smoking compartment. His first act was to stumble over a horrible brown-and-pink striped "carry-all," setting in the aisle, the property of one of the two dozen Italians who were huddled together in the smoker. Every rack over the seats, every available nook and corner was jammed, like merchandise in a freight wreck; odoriferous sacks, bags, bundles of clothing, and diminutive trunks were everywhere.

Sands was a chunky, asthmatic individual, easily irritated. Regaining his equilibrium, he dealt a well-aimed kick to the gorgeous traveling-sack, whereupon every dago grunted audibly.

"Tickets!" he demanded of the first Italian. The man didn't understand Twice before the same Italian had offered his transportation; first to the colored porter, and later to the shirt-sleeved baggage-master, both of whom indignantly refused the proffered paper. This time he wanted to be sure that the right man had tackled him.

"Tickets!" again demanded Sands. The Italian only squirmed in his seat and put a hand over his money-belt.

"Here, you pot face!" exclaimed the conductor, shaking the passenger by the shoulder. "Tickets! Tickets!"

With this, Sands went through a pantomimic illustration of a bewildered traveler producing his ticket. The Italian understood well enough, but he remembered those two other "*officios*"—the dark-faced one and the stout party—who wanted his ticket, and then cursed him when he offered it.

If there were such a thing as "voluble pantomime," it would describe the Italian's action. He aped Sands, evidently to make sure that he understood what the man in uniform wanted. After satisfying himself that the conductor had no malice aforethought, the Italian produced his ticket from the folds of a woolen sock.

Sands was ready to "blow off," but he was a new man and had to learn. An older conductor would have known how to handle his man.

Cranston, the flagman, came from the baggage-car, punch and cardboard in hand, to keep "tabs" on the "captain."

"I thought there was an order prohibiting hand-bags in the aisles," Sands remarked to the flagman

"So there is," was the reply, "but it wasn't intended for guineas. Anyway, these fellows are too suspicious to check their stuff"

As Sands was working his way slowly through the car, Cranston noticed the only American citizen in the smoker. He was occupying a part of the last seat, and was eagerly eying the conductor.

The flagman recognized "Daffy Dugan," inventor of Dugan's Submarine Fusee, who was known all over the system.

He was a typical "inventor," with long, shaggy gray hair, a pinched, seared face, and long, sinewy, nervous fingers. His shriveled body bore the weight of many years, and his shoulders were bent with care. He was regarded as entirely harmless, and had the right of way wherever he chose to go.

He was tolerated by some on account of his "white markers"; by others because he knew how to take a joke. It was either "Hallo, superintendent!" or "How's the general manager?" when "Daffy" showed himself.

Then there were a few who looked upon Dugan as a rational being, just a little "daffy" about railroading and fusees. There was no branch of the service that Dugan didn't know by heart. He was "up" on every point

He also knew every "big gun" on the N. and P., and his acquaintance with presidents and general managers extended as far west as Denver. He had letters to prove it. These he carried, bound with a huge rubber band, constantly with him.

Sometimes, when discussing the merits of his "submarine fusee," Dugan would declare, with all the animation of a schoolboy orator:

"The only reason the Virginia Central didn't adopt my fusee is because President Gill himself told me they are going to put search-lights on the rear end of every train. It's a good idea, but I told him my fusee—one million eight hundred and forty-three thousand nine hundred and—"

"Take your time, Daffy," one of the boys would say; "nobody's crowding you."

"Twenty-two candle-power," continued Dugan, utterly ignoring the interruption, "would make his best search-light look like a switch-signal, and that placed twenty-five thousand six hundred and—" But Dugan would finish to empty benches.

For weeks at a time the inventor would disappear. As a rule, he could be seen at his "factory," a miserable little shack on the company's right of way just west of Larkin. There was where Dugan turned out his fusees, assisted by his wife. As he never sold any, his means of livelihood remained a mystery; but the boys always reckoned without Daffy's wife.

Turning up at the roundhouse on one occasion, after an absence of several weeks, Daffy told of his visit to the general manager of the Chicago Southern at Chicago. Another fruitful source of speculation to the boys was Dugan's ability to secure interviews with the big men. His appearance was enough to make any chief clerk run him into a siding and stick a blue flag in the coupler.

Dugan always carried under his arm a bountiful supply of his latest fusees, wrapped in paper, and the suspicious bundle—not to forget his bedraggled looks—on more than one occasion caused him considerable annoyance.

Nothing was ever known to daunt Dugan. So when he came back from Chicago, out of pocket and minus his supply of fusees—also minus a contract—he was as hopeful and cheerful as ever

"That's a great man on the Chicago Southern," he began. "He recognizes the worth of fusees. I said, says I, 'If you'd been using my submarine fusees, that tail-end collision wouldn't have happened on your line last week.' He said he guessed I was right."

"Did you land him?" asked Jenks, an extra man.

"Naw, but almost. You see, they've got some new wrinkles, those Western railroaders, and one of the ideas is to make their own fusees. The general manager told me they were going to put fusees on the walls of the passenger-coaches, one at every seat, just like life-preservers; and whenever the train makes a stop that ain't scheduled, any passenger will have the right to snap off the head of a fusee, light it, and throw the torch to the track.

"By golly, it's a capital idea. I figured that with the Chicago Southern's two thousand three hundred and ninety-two class, twenty-two coaches, and one thousand—I forget the exact figure; but it will take over one million and some odd fusees to equip the system. That will mean the expenditure of—

somebody lend me a pencil—" Dugan looked up to see everybody smiling.

"This is no joke," he said "I'm going to install the first car."

"What do you get for it?" asked Jenks.

"Nothing, but I'll stand a good chance for a slice of the contract"

"Well, listen to me, Dugan. That man's been conning you," said Hurley, a jovial engineer. "If you want to give your fusees away, Father Lynch will use them in the fireworks display at St. Paul's Asylum for red fire."

Hurley didn't intend it so, but his remark wounded the inventor's feelings. The old man became enraged, and it was with difficulty that the boys restrained him from striking the engineer.

It was the same Dugan who was "deadheading" his way on Number Ten, Conductor Sands. Under his arm he carried the usual package of fusees In his hand he clutched a worn and greasy "annual," bearing the name, "Horatio Dugan," and the figures, embossed over the length of the card, 1881.

This out-of-date pass was called into use only on occasions when Dugan met a "tough" one. As he had never seen this particular conductor, he naturally reached for his annual.

"'Morning, cap'n," said Daffy politely, as Sands asked for his ticket. Dugan handed over the cardboard. The conductor carefully scrutinized it.

"Don't go," he gruffly said, "taking up" the annual.

The "turndown," while not a new experience for Daffy, was nothing compared to the conductor's display of authority in taking the cardboard. There were two things Daffy held as dear as life—that pass from his old friend, ex-President Johnson of the N. and P., and a tintype of a baby boy, who, while Daffy fought for the Stars and Stripes, first saw the light, and then, on the eve of the soldier's return, was called into "the clear" of eternity.

President Johnson was one of the few men who knew of Dugan's little tragedy, and, somehow, the inventor linked the annual and the childish picture with tender memories.

"Don't know him, eh?" asked Cranston, half afraid to espouse Daffy's cause

"Can't say that I do," replied the captain. "Who is he?"

"Dugan—Daffy Dugan—the general manager, we call him," was the answer. "Known all over the line."

Sands was still smarting as a result of the ordeal just undergone with the Italians, and Dugan's audacity in trying to "beat it" without even so much as speaking to him before train-time was too much for his patience.

"Can't be helped," said Sands. "I'll have to put you off."

"Hope you'll pardon me, cap'n," explained Daffy. "I would 'a' said something to you, but I saw you busy up at the express car."

"Next time maybe it won't happen," said the conductor. "This will teach you a lesson." Sands reached for the bell cord

"We're late already," interjected Cranston, hoping to save Dugan.

"Don't care," said Sands, giving two pulls at the cord.

The engineer answered; the heavy train came to a stop. Cranston reluctantly opened the vestibuled door. Several passengers crowded to the platform as Dugan slowly walked down the steps. He paused just before jumping, and as he did Cranston whispered: "Hit the engine."

That was enough for Dugan. Before Sands had time to pull the rope again dozens of passengers who had raised their windows to ascertain the cause of the sudden stop, saw—or, at least, those on the right side of the train saw—a sinister little man, with a package under his arm, climb into the engine-cab.

"Well, I'm darned if it ain't Fireworks," said the engineer, for the man on the right of the cab was no other than Hurley, who had wanted Daffy to donate "red fire" for the orphans. "Did Sands see you get in here?"

"I—I—eh?" stammered the inventor, remembering his recent encounter with the engineer.

"Well, never mind; climb up on the other seat."

Dugan tried to apologize for that "encounter," but the noise of the exhaust drowned his weak voice. Hurley didn't expect any, and wouldn't have cared to have heard it.

Presently the fireman asked Daffy: "Hurley wants to know if you want him to slow up in front of the 'factory'?"

"Not to-day," said the inventor. "I'm on my way to Philadelphia to a meeting of the American Railway Association. They want to test my fusee."

The fireman shouted this information to Hurley.

"All right. Give him my lunch," said the engineer without taking his eyes from the track ahead.

In a few minutes the "factory" came in sight, and Dugan waved a red-bordered -and very soiled handkerchief at his "employee," who stood, arms akimbo, in the entrance. Seeing the familiar handkerchief, the wife methodically returned the greeting.

"There's a letter for me at home," said the inventor to the fireman.

"How do you know?"

"The thing that looks like a windshield on the chimney, that's my semaphore. I've got a regular code," was the explanation.

"And wheels, too," thought the fireman.

When Larkin, the end of the division, was reached, Dugan made an impassioned apology to Hurley and thanked him for the "courtesy." No sooner had the inventor climbed from the engine than Sands, lock-box and cap in hand, saw him walking toward the coaches.

Much as Dugan wanted to ask for the return of his "annual," he couldn't nerve himself to the effort, for something in Sands's startled manner at seeing Daffy at the end of the division effectually dissuaded him.

Gilroy was the next conductor, and as Dugan was known to him, the inventor, feeling easier, climbed into the smoker and took his old seat. Two days later the man with the fusees reached Philadelphia, by "easy stages." He was on hand at the opening session of the association, waiting in the anteroom.

The Chicago Southern's general manager was the first to recognize him. "Still making fusees?" he asked.

"Yes, but not selling 'em," was the reply.

The official was greeted by several friends, and the party moved into the convention hall. The passing crowd revealed presidents, general superintendents, chief engineers, and mechanical officials mingling together. Everybody seemed to have right of way except Daffy Dugan; he was side-tracked for keeps, apparently.

His reveries were interrupted by the entrance of President Scott, of the N. and P., who had come to confer with one of the numerous committees of the association. He was accompanied by two gentlemen, of distinguished mien, and all were discussing a forthcoming bond issue.

Dugan awaited his opportunity, and then caught the president's attention.

"How do you do, Mr. Scott?" said the inventor, tightly clasping his hat.

"Let's see, this is—"

"Dugan," interposed the inventor.

"Oh, yes! Dugan, how are you?" said the president, extending his gloved hand. "I remember now. You're the man with the automatic switch."

"No, sir; the fusee," faltered Dugan.

"Why, of course. The fusee," said the official. The president's two friends, who were listening, smiled.

"Yes, sir; the fusee. I hope you can do something for me."

"You will have to see our purchasing-agent or get one of the committees of this association to take the matter up for you. I'll do what I can."

"Many thanks," said Dugan. "Just a minute, Mr. Scott. I forgot to tell you I'm going to make a practical test of my fusee in the N. and P. yards to-night."

"Very well," replied the president impatiently. "Write me about it."

President Scott thought no more of the incident until the following morning, when, upon glancing at a newspaper, he was attracted by this "two-line head" story:

CRANK ASSAULTS BOYS.

Inventor of Railroad Fusee, Crazed by Overwork, Attacks Two Lads—Claims President of N. and P. as His Friend.

The account of the "assault" told how Horatio Dugan, an impoverished

inventor, of Larkin, aged fifty-eight, had, from no apparent cause other than that of insanity, attacked James Hogan, aged eleven, of such and such a street, and William Lee, same address, last night, about seven forty five o'clock, in the yards of the N. and P. R. R., above Spring Garden Station.

The account further told of the frightened condition of the children: the frenzy of their parents, upon learning of the attack; the refusal of the inventor to talk, other than to give his name, age, and address, and the information that President Scott was his friend, and that he (the inventor) was conducting experiments at the time of the attack.

The prisoner, the account continued, was being held at City Hall, awaiting examination into his mental condition.

When arrested the prisoner had in his possession a package containing fusees, as well as a fusee of another make and character, that had been partly consumed.

On reading the news President Scott gave his chief clerk *carte blanche* and despatched him to police headquarters. The case, so the clerk found, had been greatly exaggerated. The "partly consumed" fusee caused the whole trouble.

With tears in his eyes, Dugan, in the presence of the president's clerk and police inspector, told how he was waiting in the N. and P. yards for an opportunity to throw one of his fusees. Presently, he said, a freight stopped near the shanty where he was waiting, and the flagman planted a fusee.

A few minutes later the train pulled off, but almost immediately the light from the torch died away with a sputter.

"'These are the kind of infernal fusees that cause wrecks,' I said to myself," explained the prisoner. "'I'll pick it up and send it to the general superintendent,' said I, and as I started to go for it two boys came running down the track.

"They beat me to it. I overtook them. I guess I was too excited to explain myself, so I just wrenches it away from them.

"A man who saw me running after the boys came up and said I was under arrest.

"'Not a bit of it,' I says, 'till I know who you be.' Then he up and says, 'Railroad detective,' and I come with him, but not without that blamed fusee." Clerk and inspector laughed at the explanation, and without more ado Dugan was released, "with compliments from the president," as the clerk put it.

All of that day he spent trying to see the N. and P.'s general superintendent. At dusk, when many of the minor clerks left their desks, "too tired for anything," Dugan was still keeping vigil near the swinging door.

Dugan — Daffy, though they called him—knew the habits of the big railroad men as well as a despatcher knows his "sheet."

The sudden glare of the electric lights, which were turned on by a colored porter, told Dugan that now was the beginning of the real "day" of the railroad giants, when big propositions are weighed; when the massive piles of blue-prints and estimates are lessened; when the tremendous problems of the roads are worked out

He was not wrong. As though induced by the silence of the outside office, which, all day long as the inventor sat there beyond the railing had been filled with the noise of typewriters, a telegraph instrument, and numerous buzzers and bells, the general superintendent pushed back the swinging door.

"Tell Merrill I'll take up his case now," he said, addressing his chief clerk.

Dugan was already on his feet. "I'd like to interest you in a new submarine fusee," he ventured.

"No time for those things," said the superintendent, making a move for the door.

"A man who will have such inferior fusees on his road as I saw in your yards last night, could be expected to make a reply like that. Some day you will be found guilty of murder."

Dugan was positive; there was no mistaking that. To be kept waiting as long as he had was bad enough, but to be turned away without a decent explanation was the last straw.

The general superintendent had recognized in Dugan the type of the inventor who haunts railroad offices; so that, instead of resenting his arraignment, he stopped to hear him through.

"Do you see this?" asked Dugan, producing the partly consumed fusee that had been the cause of his arrest. The superintendent took it.

"Yes, this is one of our new fusees," he said, looking at the stick. "Just placed an order for two thousand cases."

"Well, they're rotten!" exclaimed the inventor. "That thing you've got in your hand is a stick of sand and glue It was lighted by one of your flagmen last night and burned less than three minutes. I picked it up."

"They were inspected," explained the official.

"Actual service is the only safe inspection," said Daffy, growing hotter each minute.

"I can't do anything for you, old man. See the purchasing-agent." It was the same story.

"I want you to take one of mine, anyway. Carry it on your car. You may need it some day." Daffy handed over his last fusee, pulled his collapsible hat over his eyes, and made a flying switch for the door.

Forty-eight hours later he was at the "factory." Laying in a new supply of fusees there, he ran up to Larkin to recount his "appearance" before the American Railway Association. Some one told him the station master wanted to see him, provided his first name was "Horatio."

"That's me," said Dugan, calling at the station-master's office.

"Here's your annual," was the reply of that official as he handed over the memento. "The ticket receiver told me to see that you got it."

Daffy actually cried as he took the precious cardboard. Then he pulled a badly worn leather purse from his inner pocket and replaced the pass where he had always carried it, next to the picture of his "angel boy."

Dugan had great things to tell about his Eastern trip, his meeting with President Scott, the way he rebuked the N. and P. general superintendent, and his arrest. No one could accuse Dugan of lying, but everything he said was taken with a grain of salt.

The boys didn't even believe what he said about his fusees. No one had ever witnessed a test of Daffy's torches. In fact, he might have carried so many hickory flag-sticks instead of fusees; the man was yet to be found who could deny it.

After a week the inventor again repaired to the "factory" to improve his "product," and nothing was heard or thought of him until Thanksgiving Eve. As Number Eight, with Hurley at the throttle, drew near the shanty an explosion, easily heard above the roar of the train, attracted the attention of the engineer and firemen.

They looked in the direction of Daffy's domicile just in time to see the roof of the "factory" hurled skyward. Hurley shut off his steam and reduced speed to six miles Quickly following the explosion, came red-and-purple balls of fire, soaring with great force high into the air, producing effects like sky rockets.

The shack was instantly enveloped in flames, and as Number Eight was passing Hurley saw the wife, shrouded in flame, rush from the door.

"I'm going to stop," he said to Hobbs, his fireman. "I can carry the train in. You run over with a can of oil and look after the old woman."

The fireman jumped before the train came to a full stop. As the Express pulled away, the passengers, who had crowded to the rear platform, saw a second figure stooping over the prostrate form of the first. It was the fireman.

Instead of finding the wife, as he had expected, Hobbs found the inventor, badly burned and unconscious. He was lying in a strained position, with his body resting upon a metal crucible and a narrow mold. His clothes were still intact, and a hasty examination showed the fireman that only his hands, forearms, chest, neck, and right cheek were burned

He freely applied lubricating oil, and then ventured as near the half-consumed shanty as the heat would permit in search of the wife.

On reaching Larkin, Hurley turned his engine over to a wiper, told the trainmaster about the fire, called up the company surgeon, and with Higgins, the yardmaster, ran out a hand-car on the west-bound track. When the physician arrived, Hurley and Higgins started the

car, "pumping the handle," regardless of broken rails and red lights.

They arrived at the scene of the conflagration in time to see the thin walls of the "factory" collapse. All agreed that Mrs. Dugan must have perished, as, indeed, search the following day showed; so Daffy, groaning mournfully, was placed aboard the car and taken to the State hospital at Larkin.

Upon recovering consciousness the next day, his first words were:

"Did they stop her?"

"Stop what?" No one could answer. Then he inquired after a "leather purse." This the hospital attendants had found in an inner pocket of a red undergarment. Daffy took it between his bandaged hands and pressed it to his lips.

"Is my wife still asleep?" he asked.

The nurse and doctor nodded. The patient then gave a rambling account of how, fusee in hand, he rushed from his shack to stop a second section which was running too close to the first, "leaving the old woman asleep in the corner."

The truth of the matter was that Daffy, in his anxiety to save his implements, forgot the safety of his wife, and no one knew it better than himself.

Three weeks later the inventor, minus hair and "white markers," and rigged out in a conductor's uniform, even to the cap, hobbled into the roundhouse. He was a ludicrous sight. In spite of his misfortune, many of the boys could not help laughing, but they laughed, as Bill Pitt said, "for joy." Even Hurley, waiting to take Number Nine out, laughed.

"Guess that cured you of your fireworks," suggested the engineer.

"Not much," coughed Daffy. "I saved some of my things. When my hands get better I'm going at it again."

"It'll be the death of you yet, them fusees," remarked Hurley, as he climbed to the cab.

But nobody asked about Daffy's wife. All the inventor would tell—the least thing would start him—was: "It happened like this: I was mixing smokeless gunpowder with," etc., etc.

His first night out of the hospital was spent in the car repair-shops. Then Dugan found a home in the boiler-room near the water-tank; but he was unceremoniously thrown out by the watchman, who caught him "mixing." For the same offense Daffy was ejected successively from the paint shop, the blacksmith-shop, and finally the oil-house.

"See here, Dugan," said Higgins, the yardmaster, just after Daffy's last offense, "you're liable to burn us up some fine day. Now, you cut out this fusee business or it's you for the scrap-heap."

The inventor made some incoherent reply and hurried down the west-bound track. Passing the yard limits, he soon came to an old truckless freight-car propped up on four ties near the track. In years gone by it had been the home of a section boss, but it was now abandoned.

Dugan lost little time in making himself at home and renewing his "experiments." Unmolested, but cold and hungry, he worked with all the might of his disordered brain to make another submarine fusee.

Between times he would search for food that might be thrown from passing trains. This and what few scraps he got from the track-walker and the section-hands kept him from starving.

Finally his task was at an end, and Daffy, with his first fusee since the fire, returned to the roundhouse. He was just beginning with: "It happened this way: I was mixing some smokeless gunpowder—" when Scrap, the messenger, entered with a wire for the foreman.

After reading the telegram, he said: "General superintendent's on Six."

"Stop here?" asked Daffy.

"Yes, overnight. Inspects the Coon Run branch to-morrow," was the answer.

It was the best news Dugan had heard since Lee's surrender. The general superintendent would sleep in his car in the yards. Daffy immediately saw a vision of his last fusee burning, like a bonfire, outside the private car.

Number Six arrived at Larkin at seven ten. Wilcox and his secretary hadn't finished dinner. The private car was shifted to the warehouse track, and Daffy ran over to be on hand when the general superintendent should emerge. At the conclusion of the meal that gentleman walked to the rear platform, and,

as though scenting the fresh air, presently descended nimbly to the track.

Dugan "flagged" him immediately

"Perhaps you don't remember me," he began. "I met you in Philadelphia last fall. I want to test my submarine fusee for you." Although greatly altered in appearance, the general superintendent recognized the cranky inventor whom he had seen at headquarters.

"Very well," he said. "If Mr. Freeman, the division superintendent, will agree, I'll give you a practical test tonight." Freeman came up at that moment.

"What time is Number Eight due?" the superintendent asked

"Seven forty-nine." The general superintendent looked at his watch.

"On time?" he asked

"Yes, when last reported."

"This man here," nodding in the direction of Daffy, "wants to test a new fusee." Freeman had not been aware of the inventor's presence. He was about to offer an objection, when his chief continued: "If you say so, I'll walk outside the yards and give the man a chance to stop Number Eight. I want to stretch my legs, anyway, and we've got exactly seventeen minutes to get busy Have you a fusee with you?"

Had he a fusee with him? The general superintendent evidently didn't know Dugan. The suggestion, made so quickly, nearly dazed Daffy

The trio started westward. The officials talked mostly of "new work." Dugan, whose mind was on another thing, respectfully hung behind. After walking for some minutes, the party reached a curve. The superintendent, observing this, said:

"We'd better walk on to a straight piece of track, hadn't we?" The question was settled by the distant blowing of a locomotive whistle.

"There's Number Eight now," said Freeman. "You've just time."

This particular train is usually a "heavy" one, and to make the grade east of the Larkin yard, Casey's Bluff—where the trio halted—was passed at accelerated speed.

The officials climbed the low embankment to the left as the inventor broke the cap that ignited the fusee. With a wild thrust, Dugan stuck the torch in the track.

The train was just around the curve. Volumes of black smoke, rising high above Casey's Bluff, were lighted now and then by sweeping, pulsating rays of light from the engine's furnace.

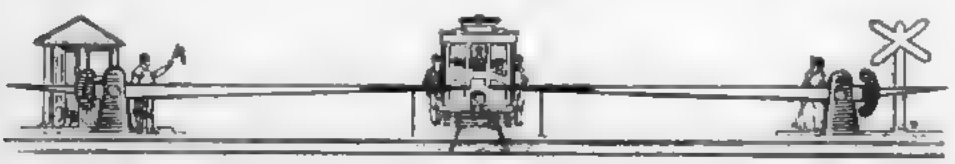
The fusee flared up, for a moment, sizzling like boiling oil dropped upon hot coals. The inventor had turned to leave the track, but the dim glare, so quickly following that first gorgeous illumination, drew him back. He stooped to flick away the encrusted ashes.

"Better move!" yelled Wilcox, for as he spoke he saw two hundred feet on the other side of the track a quick, fluttering expanse of light against the dark firs. It was the beam of the headlight as the train swiftly turned the curve.

The flood of light, slowly but unerringly, closed in nearer and nearer to the track until it threw the rails into relief like silver skeins.

As Dugan knocked away the ashes, the tongue of flame gave a fitful start, and then died with one final, impotent sputter. Daffy saw it not. His eyes, blinded by the fierce light of the headlight, gleamed savagely at the approaching train, which he knew would stop—must stop—for in his disordered mind he stood resolutely under a canopy of red flame, as death, riding on the pilot of Number Eight, disillusioned him.

Hurley, who hauled Number Eight that night, never knew of the accident until the superintendent and Freeman brought the news. What little was left of Daffy the boys carried back to the site of the "factory," where they buried it beside his wife, the first victim of "Dugan's Submarine Fusee."



The Story of Electricity.

BY EARL MAYO.

TELL the story of steam and omit mention of electricity, its noiseless right hand, and you have told but half the story of modern power.

In the years to come it is likely that this proportion in favor of electricity will increase rather than diminish. It is the power of the future, and although we may never define it, we will use it and bend it to our own good purposes more and more as knowledge of its capacities increases.

In the series of eight articles which begins this month we shall tell something of what has been done down to date. It is a wonderful story of human resourcefulness and natural resources. To read it is to gain a new idea of the material possibilities still undeveloped in the world of transportation and manufacture.

No. 1.—A FORCE THAT WAS KNOWN LONG BEFORE IT WAS NAMED.

The Women of Syria Saw the Effect of Static Electricity in Their Distaff Spindles Centuries Before the Christian Era, and the Ancient Chinese Had a Hint of Magnetism.

CENTURIES before the Christian era, the women of Syria used spindles made of amber on their distaffs to spin flax into garments for their households. According to the Roman historian Pliny, they called the amber "harpoga," meaning "the clutcher," and the reason it was so highly prized for use on the spinning-wheel was that when whirling swiftly under the revolutions of the wheel it drew the ends of the thread to it. From this peculiarity came its name.

The force that drew the threads to the amber was electricity, aroused by friction. So far as we know to-day, this was the earliest use of the mysterious current to aid the labors of mankind. The Syrian women did not know why the amber spindle exercised this peculiar power; neither did the Greeks, the most advanced in thought of the peoples who lived in the classical era, for they attributed it to the "soul" of the amber, which they believed to be awakened to action when the amber was rubbed.

The first mention of the ability of amber to attract light particles to itself—at least, the first mention in written records that have been discovered—was made by a Greek philosopher, Thales of Miletus, who lived six hundred years before Christ, at the time when Crœsus was king of Lydia and Cyrus the Great sat on the Persian throne. He attributed the amber's power of attraction to its possession of a soul.

In consequence of having been the first writer to refer to the power of amber to attract other bodies, Thales is sometimes credited with the discovery. What he really did was merely to record the current theory on the subject.

Knowledge of the fact must have existed long before he lived, for amber had been familiar to the dwellers in Mediterranean countries for centuries.

The Phenicians, the great traders of the early world, brought it from the Baltic countries, where it is found, and amber beads dating back at least to 2000 B.C. have been discovered in the ruins of Mycenæ. It may very well be that some barbarian of northern Europe, rubbing a piece of amber against the hair of his fur garments, first noticed that the amber drew the fur toward it

Christened Before It Was Known.

Wherever or however this attractive power may first have been observed, it is from amber that electricity gets its name. The Greek word for amber was *elektron*, and this in turn came from *elektor*, the name given by the Greeks to the sun.

The resemblance of clear amber to sunlight probably led to the adoption of the designation. As in the case of almost everything that excited their interest and wonder, the Greeks made a pretty story to account for the existence of amber.

This story, one of the most familiar in Greek mythology, is that for one day Phaethon, the son of the Sun god, undertook to drive his father's chariot through the heavens. Being young and unskilled, he was unable to control the fiery steeds, and the chariot came too near the earth, with the result that all the plants and animals living on it were burned. This aroused the wrath of Jupiter, who hurled a thunderbolt, killing Phaethon and casting his body to the earth.

The young god's sisters, the Heliades, found his body and wept long and bitterly over it, until at length, through the pity of the gods, they were turned into sighing poplar-trees and their tears into amber.

In this myth there was a grain of truth that the Greeks may or may not have appreciated; Jupiter's bolt was, of course, the lightning flash which Franklin, ages afterward, was to prove to be the same force as that existing in the rubbed amber.

Southwestern Asia, if the legends accepted by the Roman historians are to be believed, was the scene of another interesting discovery—that of the mysterious force of magnetism as manifested in the lodestone. As this story runs, a shepherd named Magnes, while tending his flock on one of the slopes of Mount Ida, found that the iron head of his staff clung to a rock against which he was resting it, and this particular kind of rock was thereafter called Magnes-stone.

Another version attributes the name to the fact that the first discovery of the lodestone was made in Magnesia, in Asia Minor. Possibly the name Magnesia, as well as that of the magnet, was derived from the humble and otherwise forgotten shepherd.

Strictly speaking, the first discovery of the magnet probably did not take place in this region. Quite on the other side of the world, the Chinese, who antedated Western civilization in so many fields of useful knowledge, had discovered and turned to practical account the peculiar property of bits of magnetic ore.

According to the Chinese historians, in the twenty-seventh century B.C., Emperor Hoang-Ti, while pursuing an enemy across one of the vast plains of his dominion, found his progress obstructed by a fog, which prevented him from telling in what direction he was advancing. This difficulty he surmounted by building a chariot which showed the cardinal points of the compass. This tale may be true, for magnetic ore is found in China.

If it is true, the peculiarity of pieces of this substance of assuming a north and south direction must have been known before that time, since the emperor could not have made the discovery at the moment and in a fog to boot. Incidentally, the story continues that through his resourcefulness the emperor was able to overtake the rebels and to put them to death.

The Chinese Knew, of Course.

In later centuries, but still long before the time of Christ, Chinese merchants carried bowls of water on their carts containing floating pieces of lodestone, enabling them to tell direction.

Still later they devised an improvement in the form of small images so mounted that they could turn in any direction, containing in one outstretched arm a piece of this magnetic ore, which caused them to point steadily to the north.

Had the Chinese been sailors and consequently travelers beyond their own boundaries, this knowledge probably would have spread to the people of Asia Minor and Europe; but, as it was, the Western world was left to find out for itself the properties and usefulness of the lodestone. Consequently, the earlier discovery by the Chinese does not detract from the glory of Magnes, if it was he who made it known to the Western world.

Real Inventor of the Compass.

There are many references in ancient literature to this peculiar stone, and that its properties were familiar enough to attract the attention of the romancer is shown by the "Arabian Nights" story of the ship that approached too closely to a mountain of magnetic ore, and had all its nails and iron parts drawn out of it, so that it fell apart and its crew was drowned.

Rude compasses made of pieces of lodestone floating in water, like those of the Chinese, were in use by early travelers and navigators; but the first pivoted compass is believed to have been the invention of Peter Peregrinus, a medieval soldier who lived in the thirteenth century, and who wrote a treatise on magnetism in the year 1269

This long-forgotten Peter Peregrinus discovered that the magnetic needle possessed opposite poles, and that like poles repelled, while opposite poles mutually attracted each other. Perceiving that the action of the needle was affected by some influence outside itself, and knowing nothing of the location of the earth's magnetic poles, he attributed this to some unknown force proceeding out of the "celestial sphere."

He attempted to construct a machine which should develop perpetual motion from the power of the lodestone. Although this was a failure and the investigator was proceeding on a wrong hypothesis, he had grasped an idea that was to take practical form centuries later in the dynamo.

He must have been a man of remarkable intellectual gifts, for his discoveries mark the only important development in the long period of stagnation in the scientific investigation of electrical phenomena that lasted throughout the Middle Ages. Little is known of him, however, except that he was a soldier in the army of Charles, Duke of Anjou, and that some of his important work was done while serving in the ranks during the siege of Lucera.

There are references to "amber soul" in many of the Roman writers, and some of them mention manifestations of atmospheric electricity, as in the passage from Cæsar which generations of schoolboys have labored to translate, in which he tells how the spears of his soldiers were tipped with flame, following a fierce thunder-storm.

But for any attempt to study or understand the action and properties of electricity, whether in its atmospheric manifestations or as indicated by the rubbing of amber—with the single exception of the investigations of Peter Peregrinus, which have been described—we may jump from Rome at the height of her power over nearly sixteen hundred years and across all Europe to the land that was the most remote and newly subdued of Roman provinces in the time of Cæsar—the land of the Britons.

The Awakening in England.

As every schoolboy who has studied British history knows, the beginning of the seventeenth century was one of great intellectual activity in England. Queen Elizabeth was still on the throne, and English literature was being enriched by the work of some of its most famous writers.

Science, too, was attracting many brilliant minds, and Bacon had only recently published his great "Novum Organum." Dr. William Gilbert, court physician to Elizabeth, turned his attention to the investigation of electricity and magnetism and interested many persons in court circles in the subject. In 1600 he published a work containing a list of many other substances besides amber,

which, when rubbed, exercised the same power of attraction.

These he classed as electrics, and other substances which his tests had shown could not be electrified by friction he called non electrics. This line of investigation was followed by many other enthusiasts, until nearly all familiar objects had been separated into electrics and non-electrics. Among the objects easily electrified sulfur and precious stones were given a leading place.

Gilbert devoted much attention to the magnetic needle, and studied its variation when approached by various electrified objects. He evolved the theory that the earth was itself a great magnet, with its main points of attraction at the North and South Poles. One of his discoveries of much importance was that a piece of silk laid upon an object in which electricity had been generated by friction acted to prolong its power of attraction. This was the first hint of insulation.

Curiously enough, the ruler of England who did as much as any of her long line of sovereigns to encourage scientific investigation is one who is popularly identified with very different pursuits. This was King Charles II, who chartered the Royal Society and displayed much personal interest in the experiments conducted by it.

Electricity appealed especially to the monarch, and he fitted up a laboratory for his own use at Whitehall. One of the earliest members of the Royal Society was Robert Boyle, who discovered that a diamond when rubbed vigorously in the dark emitted a glow, an early suggestion of the possibilities of carbon in electric lighting.

Meanwhile, electrical progress had begun in Germany. Otto von Guericke, burgomaster of Magdeburg, was one of the earliest of the German investigators of electricity, and carried on his experiments in the same period as those of Boyle and other members of the Royal Society in London.

What Von Guericke Did.

Von Guericke added many important facts to the sum of existing knowledge about electricity. He constructed the first machine for developing the electric current. This consisted of a ball of sulfur mounted on an axle so that it could be revolved easily.

Against its surface silk or other kinds of cloth were held as it turned. With the later substitution of a glass wheel for the sulfur ball, it became in all essentials the machine found in school laboratories to-day. Von Guericke's apparatus, crude as it was, marked the first mechanical development of electrical current, the earliest forerunner of what is to-day a mighty industry.

Another step taken by the Magdeburg burgomaster was the first transmission of the electric current, his purpose being to transfer it from an electrified to a non-electrified body. He fixed a linen thread in position and, after turning his sulfur globe, brought it close to one end of the thread. Immediately the other end moved.

The New Wizardry.

Von Guericke made no extravagant claims for his discovery. His own report said merely that "this experiment ocularly shows that the sulfur globe, having been previously excited by rubbing, can exercise its virtue through a linen thread an ell or more long and there attract something."

He had hit upon a fact destined to be of vast importance to mankind, as witness the network of wires extending over the face of the earth and through the waters under the earth for the transmission of knowledge or energy. But the realization of that was to come long afterward.

Von Guericke is one of the most important of the early figures in the history of electricity. Among his townsfolk he was regarded as a sort of wizard because he could foretell the coming of storms by means of his instruments.

Once when his house was struck by lightning the good people of the countryside pointed to it as an evidence of celestial displeasure with his habit of "shutting up and torturing in his tubes and globes" the spirits of the air. This attitude was one very generally held toward electrical investigation down to the very beginning of the nineteenth cen-

tury, and many good Americans distrusted Benjamin Franklin because of his experiments with electricity.

The experiment of Von Guericke in demonstrating the possibility of transmitting an electric current was carried much further by Stephen Gray, a gray friar in the Charterhouse, London. His experiments extended from 1720 to 1736. One of the most important was the transmission of current along a hempen thread over a thousand feet in length, suspended by loops of silk.

A Frenchman, Dubay, who may be described as an all-around scientist, since he was a chemist, botanist, anatomist, and astronomer, as well as an electrician, took the next step. He upset Gilbert's old classification of objects as electrics and non-electrics by showing that the former were conductors and the latter non-conductors.

It was he who pointed out that electrification depended less upon the substance than upon its insulation by the glass or silk supports upon which it rested. He also discovered that the same object was attracted by resin and repelled by glass. He, therefore, asserted that there were two kinds of electricity —vitreous and resinous. This division, of course, was erroneous, but Dubay had observed the distinction between positive and negative electricity.

An Electrical Side-Show.

The power of electrical manifestations to excite awe and amazement in the minds of the beholders was utilized by Mathias Bose, a Leipsic professor, to a greater extent than by any of his predecessors. He improved the electrical machine originated by Von Guericke by mounting a brass rod with one end close to the revolving globe. By this means he was able to draw off an electric spark from the globe to the rod — the first mechanical production of electric light.

Bose produced many startling effects with the electric spark. It is related of him that on one occasion he invited a number of guests to dinner. As they were about to sit down to table, they were amazed to see flames leaping from the dishes and tableware, the table having been placed upon blocks of pitch and receiving the discharge from a concealed electrical machine.

Bose ignited alcohol, turpentine, and gunpowder by means of the electric spark. He also drew sparks from the fingers of persons who had received the electric current, and claimed to be able to create a halo of fire about the head or body of a person by means of electricity.

As some of his demonstrations suggest, Bose seems to have been more keen in his thirst for notoriety than in the pursuit of scientific knowledge. It is reported of him that he expressed a desire to die by electric shock, so that an account of his death might be included in the reports of the French Academy.

The First Great Step.

At about this period, and partly no doubt as a result of the demonstrations of Bose, the belief became widespread that electricity could cure all sorts of bodily ills. Along with this went the belief that the human body might be set on fire and consumed by electricity, and that persons addicted to the use of alcoholic drinks were especially likely to be burned alive if they came in contact with the electric current. Stories of such catastrophes were in common circulation.

All of this goes to show that knowledge of electricity, and of some of its remarkable properties, was gradually extending beyond the small circle of skilled investigators to the non-scientific world. It was at this time, in 1745, that the discovery was made which may be regarded as marking the beginning of the modern science of electricity—the Leyden jar.

This apparatus takes its name from the University of Leyden, where in 1746 Cuneus, a pupil of Peter Musschenbroeck, one of the professors in the university, while experimenting with a glass bottle connected by wire with an electrical machine, received a severe shock which caused his arms and shoulders to become numb. Musschenbroeck himself tried the experiment and wrote a lively account of it, in which he said:

"Suddenly I received in my right hand a shock of such violence that my body was shaken as by a lightning stroke. The vessel, though of glass, was not broken, nor was my hand displaced by

the commotion; but my arm and body were affected in a manner more terrible than I can express. In a word, I believed that I was done for."

Although the University of Leyden thus gave its name to the first storage-battery ever invented, the honor of its earliest discovery apparently belongs to Von Kleist, dean of the Cathedral of Camen. His apparatus consisted of a small bottle, with a nail or piece of brass wire placed in it. When this was electrified, he was able to draw from it an electric flame lasting for several seconds, or even minutes.

The Leyden jar is one of the simplest, as well as one of the most important, contrivances in the development of electricity. It consists of a glass jar coated inside and out with tin-foil. The outer coating is connected with the earth, and the inner with an upright rod inside the jar, which receives the charge of electricity.

A Human Transmission Line.

Current stored in this way will be retained for a long time. The jar is discharged by establishing a connection between the two coatings, which may be made either through the body or by means of a wire. It was by passing the current through his body that Musschenbroeck received the shock which he describes vividly.

The discovery and gradual improvement of the Leyden jar lent a new direction to electrical experimentation. Many tests were made, which showed that the current from the jar could be sent through any length of wire or any number of human bodies.

Seven hundred and fifty Carthusian monks formed a line over a mile in length, a continuous circuit being established by short pieces of wire held in their hands. When the jar was discharged, the whole line of monks jumped at the same time, showing that the transmission of the current was instantaneous.

An English experimenter sent a current across the Thames by means of a wire two miles long. It was at this time, in 1747, that Benjamin Franklin began the study of electricity, which was to result a few years later in one of the boldest and most important experiments in the whole history of the science.

Franklin's experiment marked the beginning of the study of electricity in America, where so many of its most important applications to human uses have since been made. He was a member of the Philadelphia Literary Society, to which the first Leyden jar seen in America was sent by Peter Collinson, a member of the Royal Society.

Experiments with this, as well as the result of previous investigations conducted in Europe, convinced Franklin that atmospheric electricity displayed in lightning was identical with the current stored in the Leyden jar. The same idea had been suggested before this time by the Abbé Nollet in France.

Franklin determined to prove it. He was fully aware of the danger of possible death which it involved, but he believed that the gain to science from a successful demonstration was worth the risk.

Franklin's idea was that if an iron rod, properly insulated, were exposed to a passing thunder-cloud at a sufficient height, it would be possible to draw off a spark from it, just as in the case of the electrical machine or the Leyden jar. His plan was to erect his rod from a church spire; but as there was no suitable spire that he could utilize, he decided to carry a wire aloft by means of a kite.

The kite consisted simply of a silk handkerchief stretched on two cross pieces, from one of which a wire projected. The cord of the kite was of hemp, except the lower end, which was of silk. At the junction of the two a key was fastened to the hempen cord.

Franklin Braves the Lightning.

On the appearance of the first thunder-storm after his apparatus was ready, Franklin went out, accompanied by his son, and liberated his kite. A low thunder-cloud passed over it, but no sign of the electric current appeared until the cloud had passed almost by.

Then, suddenly, the loose fibers at the end of the hempen cord began to vibrate, and Franklin, touching his knuckle to the key, drew off an electric spark, re-

ceiving at the same time a strong shock. He charged a glass bottle from his kite-string, and performed a number of other experiments.

He had proved the identity of the electric current with the lightning flash, and had established a reputation among the scientists of Europe.

Accounts of Franklin's demonstration were immediately published on both sides of the Atlantic, and the experiment was repeated by a number of European investigators. One of these resulted in the first death that occurred in the course of electrical experimentation —that of Professor Richman, of St. Petersburg.

He had constructed an apparatus intended to measure the strength of the lightning stroke, and this apparatus was connected with an iron rod projecting above the roof of his house. While leaning over his machine in the course of a thunder-storm, there was a terrific crash, a discharge of flame from the machine, and the scientist was thrown back lifeless upon the chair from which he had just risen.

Many persons believed that men who performed such experiments as those of Franklin and Richman were tempting the wrath of Heaven, and Franklin's invention of the lightning rod to protect buildings was opposed on the ground that it was an impious device.

Galvanism First Appears.

Toward the close of the eighteenth century we come upon two scientific investigators whose names have become part of the phraseology of modern electricity. The first of these was Luigi Galvani, of the University of Bologna. The story is told that Galvani's wife was preparing some frogs' legs for his dinner, and that while he was conducting an experiment in the room where they were standing, he observed a twitching of the muscles in the legs of the frogs.

He began to investigate this phenomenon and found that if one metal of an arc—the ends of which were of iron and copper—was brought into contact with a nerve or the end of the spine and the other was touched to a muscle, the latter immediately contracted.

It is quite possible that the story is apocryphal, so far as the original purpose of the frogs' legs is concerned. Galvani's attention may very well have been drawn to the subject by the various theories that were in circulation as to the presence of electricity in the bodies of animals and men. Certain it is that he performed experiments with frogs, and in 1791 published a book, in which he set forth his conclusion that electricity was supplied to the muscles from the nerves and blood.

Although Galvani's fame is preserved to-day in the name of the galvanic battery and by a fine monument erected in the city of Bologna, he received little recognition in his lifetime, and died neglected and in poverty. While his theory was a mistaken one, his work was important in preparing the way for later discoveries and inventions.

Volta Builds His Pile.

Offering the strongest possible contrast to the career of Galvani was that of Count Alessandro Volta, who, as the youthful professor of physics in the University of Pavia, combated Galvani's theory as to the source of the electric current which he had observed in the nerves and muscles of frogs. Volta's explanation was that the current was set in action by the two dissimilar metals, and that the frog was merely the conductor.

To prove his theory, he constructed what came to be known as the Voltaic pile. It consisted of alternate disks of copper and zinc, separated by pieces of woolen cloth saturated with salt water or sulfuric acid. A number of these disks set one above another produced a strong current, which was released when connection was established between the top and bottom disks.

Later on he constructed another form of the same thing in what was called the cup battery. It was composed of a series of cups filled with salt water or sulfuric acid. A number of metal arcs, with one end of zinc and the other of copper, joined each pair of cups, being set like a siphon, with one leg in one cup and the other in the next. The result was the production of a current of

considerable power, but of extremely low velocity.

It is this form of current that was used in the experiments which resulted in the telegraph and the telephone, and so, although his discovery did not lead to the production of electric power as was at first hoped—it was of vast importance to mankind by helping to make possible these later inventions.

Volta was far more fortunate than Galvani in securing recognition for his work during his lifetime. He was a member of the nobility, and had influential relatives and friends. Another factor in bringing him fame was that he lived in the time when Napoleon was at the height of his power, and his discoveries aroused the interest of the emperor.

A Protègè of Napoleon.

He was invited to Paris and delivered an account of his investigations before the French Academy at a meeting presided over by Napoleon himself. By the emperor's direction, the scientist received a gold medal and an award from the national treasury. An annual prize of three thousand francs, to be awarded for the best experiment in electricity, was founded in his honor.

Napoleon often visited the laboratory where Volta conducted his experiments, in order to watch them and to converse with the inventor. He regarded Volta and Franklin as two of the greatest men of the century.

It is related that on the occasion of a visit to the National Institute, Napoleon saw a bronze tablet bearing a wreath of laurel and inscribed "*Au Grand Voltaire*," and that he erased the last three letters to make it read "*Au Grand Volta*."

Following close upon Volta's work came the demonstration by Hans Christian Oersted, a professor in the University of Copenhagen, that an electric current passing close to the magnetic needle would cause the needle to be deflected.

Ampère's Contribution.

Almost simultaneously with the investigations of Oersted, in 1821, Professor Suback, of Berlin, discovered that heat might be made to develop electricity. He joined bars of bismuth and antimony, connecting the opposite ends by a wire, and found that when the point of union was heated, an electric current flowed along the wire. From this investigation resulted the thermo-pile, used at the present time in laboratory work.

At this period appears another name that has since passed into common use in the parlance of electricity—that of Ampère—who suggested the idea of influencing the action of a series of needles by currents of varying strength passing over an equal series of wires. A year later he constructed a magnet of galvanic wire.

In 1825 an Englishman, William Sturgeon, completed an electro-magnet made of a piece of iron bent into the form of a horseshoe and wrapped with copper wire. Professor Faraday, in 1831, produced electricity from a magnet, and a year later a Frenchman, M. Pixii, constructed a magneto-electric machine which developed a current of considerable strength.

These inventions, from Volta on, had a direct bearing on the construction of the telegraph; at the point where we leave the subject, Joseph Henry in America and Cooks and Wheatstone in England were beginning the experiments which were soon to result in the practical transmission of intelligence between distant points by means of electricity.

One of the earliest, as it is the greatest, of the widespread and practical applications of electricity was in the telegraph. We have already told the inside history of its invention (May, 1908). Next month we shall present in this series an account of the great work that has been done for mankind down to date by the land telegraph and the ocean cable.

FREAK ENGINE FOUND IN CANADA.

Locomotive of the By-Gone Days Turns Up Mysteriously Near Grand Trunk Tracks at Toronto, and None So Poor To Do It the Reverence of Ownership.

NOT all the freak locomotives have been found and described. We thought THE RAILROAD MAN'S MAGAZINE had gone pretty well through them and settled the problems of their history and usefulness, but the Toronto *Daily Star* springs a new one on us.

The picture of it shows a machine fearful and wonderful. Never was its like heard of in prose or poetry. It may be not as bad as the picture would imply, for, frankly, it is not a good picture, but as far as we can make it out it appears to run on beveled pinions, and to have two or three battlemented towers scattered along its upper story, one of which seems to be fitted with a wireless telegraph-sending equipment of poles, antennæ, etc

The story of it reads like a description of a "Wild Man of the Woods." The locomotive, it seems, is lost. It is an outcast, neither useful nor ornamental, and if anybody owns it he is concealing the crime admirably

It is near the Grand Trunk tracks, but the Grand Trunk admits no ownership; simularly the Canadian Pacific. The *Star* says of it:

"It differs in many ways from an ordinary locomotive.' In the first place, the engine and tender are carried on one continuous frame, and are not two distinct sections, as is usually the case. They are built on two heavy steel girders, which extend from end to end, supported in front by the four wheels of the engine, and at the rear by those of the tender. The fire-box and rear half of the engine are braced up with supporting rods—as these girders are not strong enough to carry the weight unsupported.

"The two trucks or frames to which the wheels are attached carry their load on a pivot, very similarly to the trucks of the larger trolley-cars being run at present in the city. This makes it possible for such a locomotive to take curves which would throw an ordinary engine off the rails at the first attempt to round them.

"The greatest divergence from the usual type, however, lies in the building of the cylinder and piston in an upright position. This gives it the appearance of an upright stationary engine.

"The stroke of the piston is very short, and the steam-chest is quite roomy. The piston-rods are connected to a long bar which extends from end to end of the engine and tender, and which in turn is connected to the wheels by cogs. These wheels are small and heavy, being very little larger than the wheels of an ordinary freight-car. The water tank is exceedingly small, and there seems room for scarcely a ton of coal

"The *Star* found considerable difficulty in learning of the ownership and use of this little undersized, primitive member of the locomotive fraternity. Although it stands beside the G. T. R. tracks, the officials of that road, as far as they could be consulted, knew nothing of it. Nor did those of the C. P. R. A well-known engineer was found, however, who knew something of its history

"'It is what is known as a "shay" engine,' said he, 'and is especially designed for mountain climbing and drawing heavy loads. It cannot go fast, yet from a distance, judging by the terrible puffing and blowing it makes, one would imagine it was breaking the record.

"'The long bar which connects the piston-rod with the wheels is broken by what is known as a "universal joint," which makes it possible to make very short curves. There are very few of this type of engine used, and none that I know of in the East. They are only found in mountainous sections.

"'Regarding this particular engine, it belonged to an American railroad and was probably in a wreck and became too badly damaged to be worth repairing. It is a curiosity for this part of the country, and should be run down into the Exhibition grounds, where every one interested could see and examine it.'"

A HERO WITH JUDGMENT.

BY FRANK L. PACKARD.

Fools Rush in Where Angels Fear To Tread,
But Wise Men Take the Chance That Others Dread.

THE directors, scowling over the company's annual report, threw up their hands in holy horror. What! The Transcontinental Trunk Line, with its enormous business, its Pacific coast terminus, its Eastern tide-water connections that were the envy of rival roads, showing almost a deficit for its last year's business! It was deplorable! It was worse—it was ruinous!

Then from the sacred precincts of the board-room there emanated the agonized cry:

"Economy!"

The general manager took up the slogan and dinned it into the ears of the division superintendents

"Operating expenses are too high," he wrote. "They must be cut down." And the superintendents of divisions, painfully alive to the fact that the G. M. was not dictating for the mere pleasure of it, intimated in unmistakable language to the heads of departments under them that the next quarterly reports were expected to show a marked improvement.

John Healy had charge of the roundhouse at Big Cloud, on the Hill division, in those days, and the morning after the lightning struck the system he came fuming back across the yards from his interview with Brent, the superintendent, stuttering angrily to himself. As he stamped into the running shed, his humor a shade worse than usual, the first object that caught his eye was Speckles, squatted on the lee side of 483, dangling his legs in the pit. That is, it would have been the lee side if Healy had come in the other door.

"Cut down operatin' expinses, is ut?" Healy muttered. "Begorra, I'll begin right now!"

And he fired Speckles on the spot.

Now, Speckles—whose name, by the way, was Dolivar Washington Babson—had been fired on several occasions before, and if he swallowed a little more tobacco-juice than was good for his physical comfort it was rather as a gulp of startled surprise at Healy's appearance than because of any poignant regret at the misfortune that had overtaken him. Nevertheless, he felt it incumbent on him to expostulate.

"Git out an' stay out!" said Healy, refusing to argue. Speckles got out.

For a day he kept away from the roundhouse, the length of time past experience had taught him was required to cool the foreman's anger; then he sauntered down again and came face to face with Healy on the turntable.

"I came down to ask you to put me on again, Mr. Healy," he began, broaching the subject timidly.

"Phwat?" demanded Healy.

"I came down to ask you to put me on again, Mr. Healy," Speckles repeated monotonously

"Oh, I heard you—I heard you," said Healy, a little inconsistently. "On ag'in, is ut? Ut'll be a long toime, me son, mark that!"

This being quite different from Healy's accustomed, "Well, git back to yer job," it began to filter vaguely through Speckles's brain that his name was no longer to adorn the company's pay-sheets.

"Am I fired for good, Mr. Healy?" he faltered.

"You are!" said Healy. "Just that!" Then, relenting a little as Speckles's face fell: "If 'twere not fer the big-bugs down yonder"—he jerked his thumb in the general direction of the East—"I might—moind, I don't say I would, but I might—put you on ag'in. As ut is, we've instructions to cut down the operatin' expinses, an' there's an ind on ut!"

"'TAIN'T ONLY THE THIRD TIME, AND 'TWASN'T FOR NOTHIN'," SAID SPECKLES, A BIT SULLENLY. "I WAS ONLY RESTIN'.

Speckles stood for a moment in dismay as Healy went back into the roundhouse; then he turned disconsolately away, crossed the tracks to the platform of the station, and, seeking out a secluded corner of the freight-house, sat down upon a packing-case to think it out.

To Speckles it was no mere matter of cutting down expenses. It was a blasted career!

Whatever Speckles's faults, and he was only a lad, he had one redeeming quality, before which, in the eyes of the business he had elected to follow, his strayings from the straight and narrow path dwindled into insignificance—railroading was in his blood.

At ten he had started in as caller for the night-crews, and, during the five years the company had had the benefit of his valuable services in that capacity, there was not a man on the division but sooner or later came to know long-armed, bony, freckled-faced, red-haired Speckles—came to know the little rascal, and like him, too.

Then Speckles had been promoted to the post of sweeper in the roundhouse, and occasionally, under Healy's critical inspection, to washing out boiler-tubes. Fresh fuel thereby added to the fire of his ambition, he began to figure how long it would be before he got to wiping, then to firing, and after that—even Speckles's boundless optimism did not have the temerity to specify any particular date—the time when he would attain his goal and get his engine.

Now, instead, at the age of sixteen, he found himself seated on a cracker-box, his dreams for the future rudely shattered—thanks to Healy, old Sour Face Healy!

So Speckles sighed, and as he sighed the shop whistle blew. It was noon, and the men began to pour out of the big gates. Then Speckles, remembering that

the schools were also "letting out," hurried down the platform and up the main street. He would confide in Madge. Madge would understand.

Madge Bolton was the daughter of the lunch-counter proprietor at the station, between whose father and Speckles there existed a standing feud, the *casus belli* being fifteen-year-old, blue-eyed Madge. Speckles kicked his heels on the corner until she appeared; then he turned and fell into step beside her, reaching a little awkwardly for her strap of books.

"Hallo, Dol!" was Madge's greeting. She was the only person in Big Cloud who did not call him Speckles.

"Hallo, Madge!" he returned.

Madge glanced at his face and hands. "Haven't you been to work?" she asked.

"Nope."

"Why, Dol?"

"Fired," said Speckles laconically.

"Oh, Dol, again!" she cried reproachfully. "What for?"

"'Tain't only the third time, and 'twasn't for nothin'," said Speckles, a bit sullenly. "I was only restin'."

"Dolivar Babson," she accused, "you were loafing. Oh, Dol, you'll never get to firing, and—and—" She hesitated and stopped, her cheeks a little red with the hint of boy-and-girl castle-building that would have increased her father's ire against the luckless Speckles had he seen it.

Speckles, somewhat shamefaced, and having no excuse to offer, trudged on in silence.

"Did you ask Mr. Healy to take you back?" she inquired, after a moment.

"He won't," said Speckles.

"What are you going to do, Dol?"

"I dunno."

"Well," said Madge hopefully, "perhaps you could get a job in one of the stores. I'll ask Mr. Timmons, the grocer, if you like. I know him pretty well"

Speckles came to an abrupt and sudden halt, cast in Madge's face one look that carried with it a world of unutterable reproach, handed over her books in silence, and fled.

He, a railroad man, go into a store! And this from Madge! Madge, who, of all others—it was too much! Speckles ate his dinner, dispirited and crushed. Everything and everybody was against him

His mother's curt inquiry as to when he was going back to work did not in any way tend to mitigate his troubles—rather, on the contrary, to accentuate them.

"Old Sour Face won't put me back," he jerked out, in response to his mother's repeated question.

"No wonder he won't," said his mother sharply, "if you're as disrespectful as that. I'm ashamed of you, and you ought to be ashamed of yourself."

Speckles was too much depressed to offer any defense. He finished his meal in silence, gulped down his cup of tea in two swallows, took his hat, and started out.

Unconsciously he directed his steps toward the yards, and, some five minutes later, arrived at the station. Here, about half-way down the platform, he spotted Mat Bolton in the open doorway of the lunch-room.

As he approached, the nonchalant air with which the proprietor leaned with folded arms against the jamb of the door aroused Speckles's suspicions. To reach the seat of his meditations—the cracker-box in the freight-shed which had now become his objective point—he would be obliged to pass Mr. Bolton. He therefore began to incline his course toward the edge of the platform nearest the rails, so that, when he came opposite the eating-house door, some fifteen feet were between him and his arch enemy.

Mr. Bolton awoke from his lethargy with surprising suddenness.

"You young rascal," he shouted, "what you been doing to my girl? I'll teach you to make girls cry, you little speckled-face runt, you!"

He made a dash for Speckles, but by the time he had recovered his balance and saved himself from toppling over the edge of the platform to the tracks, Speckles had reached the safe retreat of the freight-shed door. And as the irate parent, after shaking his fist impotently, walked back and disappeared in the lunch-room, Speckles indulged in a series of pantomimes in which his fingers and his nose played an intimate and comprehensive part.

Perched once more on the cracker-box, Speckles again resolved himself into a

committee on ways and means. His little skirmish with Madge's father had exhilarated him to such an extent that his heavy and oppressing sense of despondency had vanished, and in its place came a renewed determination to resume, somehow or other, the railroad career that Healy had so emphatically interrupted

He turned over in his mind the feasibility of applying to Dixon, the fitting-boss, for a job in the shops, but dismissed the idea almost immediately on the ground that shop men were no more railroaders than was Doughnuts—his private designation of Mr. Bolton.

He might start in switching and braking, and work up to conductor. That, at least, was railroading—not to be compared with engine-driving, not by long odds, but still it was railroading. His face brightened. He would interview Thornley, the train master.

Thornley was in his office. Speckles had not very far to go, only a few steps down the platform. All the offices—and Big Cloud was division headquarters—were under the same roof. The station did duty for them all.

At Speckles's request, Thornley swung around in his swivel-chair with a quizzical expression on his face. Then he grinned.

"Want to go on with the train-crews, eh? What do you think, kid, that I'm running a kindergarten outfit, even if some of 'em do act like it? How old are you?"

"Sixteen," said Speckles, with a sinking heart.

"Sixteen, eh? Well, come back in a couple of years, and—"

But, for the second time that day, Speckles fled. He was in no mood to stand much chaffing, and Thornley, as he very well knew, had a leaning that way. Speckles halted outside the door, undecided what move to make next, when the clicking of the instruments in the despatcher's room overhead came to his ears like an inspiration.

Why hadn't he thought of that before? MacDonald, who had been on the night trick most of the years that Speckles was caller, was now chief despatcher. If he had any friend anywhere, it was MacDonald, the man at whose elbow he had sat through those long, dark hours of the night that beget confidences, and into whose ears he had so often poured the tales of his cherished aims and ambitions.

Speckles covered the stairs three steps at a time, in his new-found exuberance. MacDonald looked up from his key and listened as Speckles told his story.

"So you're Healy's contribution to economy, eh?" he said when Speckles had finished. "And he won't take you back?"

"No," said Speckles.

"Well, that's pretty rough. But I don't see how I can help you any, Speckles. I haven't any rights over Healy, you know."

Speckles hesitated a moment and fidgeted nervously from one foot to the other. "I know you ain't," he began, "but I thought maybe you'd put me on here."

"W-what!" ejaculated MacDonald. Then, smothering a laugh at the sight of Speckles's wobegone countenance, he demanded gravely: "You mean despatching?"

Speckles nodded.

"No, no, Speckles, that would never do. You go back and see Healy. I'll do what I can for you with him."

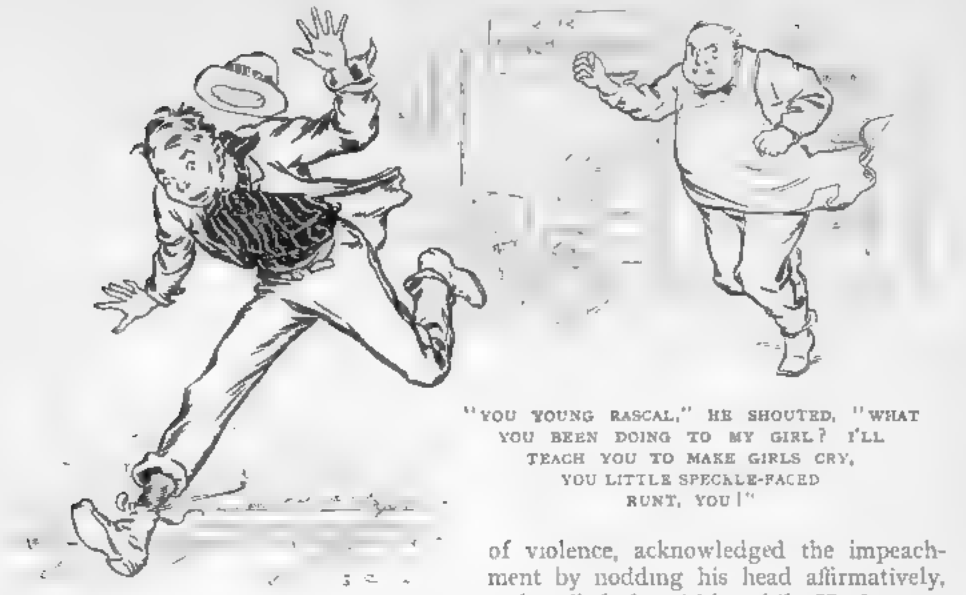
"'Twon't do no good," said Speckles hopelessly. "I've asked him twice already."

"Well, ask him again. Look here, Speckles, it's up to you to square yourself with Healy, somehow or other. If you want your job very badly, you ought to be sharp enough to find a way of getting it. Go on, now."

So Speckles descended the stairs to the platform and irresolutely began to cross the tracks in the direction of the running-shed. He reached the round-house and skirmished cautiously along its front. No Healy was in sight, so he dived in between two engines and made his way to the rear of the shed. Here, by peering around the end of a tender, he could see Healy's cubby-hole—Healy called it an office.

A bit of space about four by six was partitioned off from the back wall in the corner, with a greasy book the engine-crews signed, and two or three others, equally greasy, in which Healy kept tabs on things in general.

In spite of his trepidation, Speckles



"YOU YOUNG RASCAL," HE SHOUTED, "WHAT YOU BEEN DOING TO MY GIRL? I'LL TEACH YOU TO MAKE GIRLS CRY, YOU LITTLE SPECKLE-FACED RUNT, YOU!"

grinned. Healy was there, bending over a very flimsy, spindle-legged table that he had wheedled out of the claim agent some months before. His brows were puckered into a ferocious scowl, and he growled and muttered to himself, now laboring furiously with a stubby pencil on the sheets of paper in front of him, now pausing to bite that unoffending article almost in two in his desperation.

Healy was working on his invention. All the division knew about Healy's ideas on Westinghouse and "air," and that these ideas, when perfected, were to be patented. As to what the consensus of opinion of their value was is neither here nor there, except that in Healy's presence, when referred to at all, the subject was treated with dignity and respect, for Healy's physical powers were beyond the ordinary, and dearest to Healy's heart and most sacred in his eyes was this creation of his brain, or, to be more accurate, fancy.

Speckles sidled up to the cubby hole, and, without any peroration, took the plunge. "I came to ask you to put me on again, Mr. Healy." He spoke rapidly, as though he feared his courage might ooze out before he could finish.

Healy wheeled round with a grunt.

"Oh, ut's you, is ut?" he demanded grimly.

Speckles, ready to run at the first sign of violence, acknowledged the impeachment by nodding his head affirmatively, and smiled sheepishly while Healy scrutinized him with a long stare from head to foot

"Well," said Healy, "you wait a minute an' I'll give you me answer."

Speckles's heart bounded in joyous hope. Healy very deliberately gathered up his papers, folded them carefully, and opening the cupboard where his coat hung—it was a hot day, and Healy was in his shirt sleeves—tucked them into the inside pocket. Then, like a flash, he turned and reached for the first thing in sight. It was a broom.

But, quick as he was, Speckles was quicker, and he led Healy by the length of the pit as he dodged around the tail end of a tender and darted out of the running-shed across the tracks to the freight-house. Healy followed no farther than the turntable.

There he halted, and Speckles, from his retreat, saw him shake his fist and listened to the threat that thundered across the yards: "Show ver face around here ag'in, you young rascal, an' I'll bate the loife out av you, so I will!"

Speckles betook himself to the cracker box, and from his lips there flowed a fluent and unrestrained expression of his opinion on things in general, but more particularly of Healy, and more particularly still of Healy's invention. Then, his indignation subsiding, it was followed by a fit of the blues; so that when, at

the expiration of half an hour, Healy, still in his shirt-sleeves, came out of the roundhouse and walked up the tracks in the direction of the shops. Speckles, through the freight-house door, remarked the incident in complete apathy and as one in which he had no interest whatever.

Ten minutes later, however, his apathy vanished and he sprang to his feet at the sound of the excited shouts of the men in the running-shed. Some were hastily swinging the big engine doors wide open, others were setting the table in position, while one started on a run in the direction Healy had taken.

Another minute and the shop whistle had boomed out its warning, and Healy, with the man who had gone after him, came tearing down the track like mad. Speckles saw the smoke beginning to curl up over the roof at the back. The running-shed was afire

With a whoop, Speckles traversed the platform, leaped to the rails, and was hard on Healy's heels by the time the turntable was crossed. Healy paused but an instant. The thing to do was to get the engines out, and Healy was the man to do it.

"Get tackle rigged on 463," he ordered. "She's cold, an' we'll have to haul her out. Set the table fer 518; I'll take her."

Then he started on the jump for the cubby-hole and his precious papers.

Now, the tackle that Healy had referred to was stored in the rear of the roundhouse in the same general direction as the cubby-hole, and as the order had been given to no one in particular, Speckles, shouting "I'll get it," started after Healy.

Some grease and waste had caught and was rolling up a nasty smoke. Through it, even while he tugged manfully at the heavy tackle, Speckles saw Healy run into his office, snatch his coat, rush out again, and dash for the cab of 518, throwing the coat up on the tender. As he did so, something fell from the pocket.

Speckles dropped the tackle and pounced upon it. It was the bundle of papers he had seen Healy put in his coat-pocket a little while before

It was Healy's invention!

Speckles's first impulse was to shout to Healy, but just then 518 glided out of the shed, and the men in front of 463 were yelling in chorus for the tackle, so Speckles put his tongue in his cheek and the papers in his pocket.

It wasn't much of a blaze, but it looked bad while it lasted. Even after

"UT'S A HERO YOU ARE, ME BRIGHT JOOL AV A LAD!" HE CRIED IN HIS DELIGHT.

the shop-hands had got their hose-lengths connected and a stream playing on the fire, and the engines were all in safety in the yard, the smoke continued to roll out in clouds, with here and there a vicious tongue of flame.

Then Healy, his duty done, bethought him of his coat on the tender of 518. And Speckles, as he heard Healy's gasp of dismay on discovering that his papers were gone, had an inspiration.

"Me papers! Me papers!" wailed Healy. "Fer the love av Mike, I must av dropped thim on the flure!"

"I'll get them for you, Mr. Healy," said Speckles quick as a shot.

"You'll not!" said Healy. "I'll have no wan risk his life fer them, bad as I want thim. Hey, come back, you runt!"

But Speckles was gone. Headed straight for the big, yawning doors that vomited their smoke and flames? Oh, no, not Speckles! Hardly! Speckles would make his attempt from the rear! And around the end of the shed and in behind he raced.

Some of the men were fighting the fire from that side, but they were too busy to pay any attention to Speckles. A dab of soot and dirt on his face which he obtained by rubbing his fingers along the blackened wall, an artistic smudge of generous proportions on the outside of the papers, which he took from his pocket, and Speckles's make-up was complete and convincing.

Now, Speckles had an eye for the dramatic and an appreciation of its value. He peered in through one of the windows. It was not nearly as bad inside as it had been, and he decided there would be no risk and very little discomfort in carrying out the plan that had popped into his head.

So he climbed in through a window and dropped down to the floor on the other side. The next minute he had dashed through the running-shed, and emerged in a perfect whirl of black smoke into the open in front of the turntable, the papers waved aloft in his fist.

It was effective—decidedly effective! A cheer went up, and the men crowded around while Healy rushed forward and began to pump Speckles's arm up and down like an engine piston.

"Ut's a hero you are, me bright jool av a lad!" he cried in his delight. "'Tis mesilf, John Healy, that ses ut, an' the bhoys are me witness. Come back to yer job in the mornin', an', by me sowl, Speckles, I'll niver fire you ag'in, niver! An' ut's more I'll do—I'll promote you. Ut's a wiper you are from now on, me son, an' to blazes wid cuttin' down operatin' expinses! Where did you foind the papers?"

"On the floor," said Speckles—and he told the truth.

All the afternoon Speckles basked in the radiance of hero-worship, but that night he lay awake with a very bad conscience, as a result of which he made a clean breast of the whole business to Healy the next morning. Healy heard him through, blinking his eyes and occasionally muttering under his breath.

"Ut's a bad ind you'll come to," he sputtered, when Speckles had stammered through to the end of his confession—"a bad ind! An' ut's a fool you'd make of me, is ut? Begorra, if I hadn't passed me word in front of the bhoys, I'd fire you ag'in this minute. I wud that! But, word or no word, you young haythen, I'll do ut, an' do ut quick, if iver you open yer mouth about this to a livin' sowl! An' me after puttin' in a good word fer you wid Mat Bolton!"

THE PRETENDERS.

BY ARTHUR STANLEY RIGGS.

In Which Fabian Finishes a Railroad and Discovers an Unoccupied Castle in Spain.

CHAPTER XXI.

"I Am Not Afraid to Die!"

ALL the way home Elena prayed that Fabian might get into no difficulty, for his hasty explanation had not satisfied her. The night dragged heavily, and with dawn came the tidings of battle. One of the wounded cavalry officers was quartered next door to Don Jacinto's, and from him Elena heard the news of the victory, glorified and extended into a riot of slaughter from which not a single insurgent had escaped alive.

Her decision was taken instantly and, calling her servant Pepe to come with her, she sprang upon her pony and was off for the field. Over the familiar road she flew, the steady clopp-clopp-clopp of her horse's hoofs keeping time with the faintly breathed assurance that Jim was unhurt.

Fast as she went, it was a weary ride, and she dashed up to the bunk house just as the gang was finishing a late breakfast and starting out, such of them as were not disabled, to begin work again. The girl shivered and turned sick at the bloody bandages roughly tied around heads and arms as she walked her beast through the smiling, bowing crew up to the door of the shanty.

Beside the door sat Mike, his face unusually bright and pleasant, as she slipped to the ground and stood before him in an agony of fear.

"Yis, *señorita*," he grinned, in answer to her unspoken question, "he's hurrted, but 'tis not ba-ad. Just a bit av a flish wound in th' neck. Ye'll foind him roight in there, shtill aslape, Oi think."

He pointed to an adjoining room, the door of which was ajar, and discreetly hobbled out into the sun as she softly opened the door wider and entered, to bend for a moment above the bed before the wounded man opened his eyes slowly. His neck and shoulder were swathed roughly in a torn shirt, and the pillow was stained with red, but she thought only of his safety as she looked down into his dark, tired eyes with a misty smile of sympathy.

Weakly he smiled, reaching out to draw her willing hands to his lips almost before the sleep had left his eyes.

"It is good of you to come," he murmured, his face glowing. "I was stupid enough to get hurt last night, but it is really nothing. I shall be all right in a day or so.

"Just a bit of a scratch that has lamed my shoulder and neck a little. Don't cry, please. Honestly, it isn't anything at all."

He moved well over on the bed, and drew her down to sit upon its edge, retaining her hand as he talked. With every moment his nerve was bringing his strength back, and his voice was as deep and natural as ever, in spite of the pain of his ragged wound. Elena had not spoken a word, but he did not seem to notice that, and talked on with increasing enthusiasm about the battle, making light of it, yet telling her enough to show the desperate nature of the struggle.

"And my little sister cared because I was hit?" he asked. "Cared? When did I not care—"

she began, and broke off suddenly, to go on after a moment confusedly. "Of course. It would have been dreadful if you had been killed.

"Why must you keep me in such a state of anxiety? I had much rather know when you are in danger. I suffer to think of your being exposed to such terrible risks."

"Why, I haven't been running any such dreadful risks," Jim replied gaily. "It's all a part of the game, as I knew very well when I said I would help you and we started down here on the little Estrella. Do you regret having brought me?"

"Yes—no, never!"

"Elena, tell me something I have been wanting to know for months?"

"Beg parrd'n, sor," interrupted Mike's cheerful voice from the doorway, "but ye said lasht noight Oi was t' git th' min starrted t' worrk agin this mornin'. Sivinty-two av thim arre at ut harrd, roight now. We're afther making good progress th' day, an' even th' min thot's hurrted th' worrst ain't bad. Av we don't hov no more throuble, sor, we kin git th' rist av th' loine done in two wakes more, aven wit' you in th' hospital to git mended up."

"Good!" ejaculated the engineer. "Drive 'em hard, Mike, and tell the boys I'll see they get double pay for the week that ends to-morrow. They deserve far more than I can give them for the splendid way they behaved last night."

"T'anks, sor; but they don't care fer th' pay. 'Twas th' foight they was afther. 'Twas a bully scrap, too. We done up an' buried about a couple o' hundhred av th' greasers—beggin' yer parrd'n, *señorita*."

Elena had recovered her poise, and laughed back: "Don't beg my pardon for anything you care to say about the people of Meridiana. *Gracias á Dios*, I am no Meridianian."

"I'm mighty glad of that," thought Fabian, with increasing assurance. "Now, sister-girl, if you will go outside and sit down for a while, I'll get up and dress, and we can ride into town together.

"I want to get this scratch dressed properly. Mike, send Mac in here to give me a hand."

The girl and the Irishman walked out of the shanty together, her heart beating so loudly she was afraid the burly foreman could not but hear it

Mike heard nothing as he hobbled beside her to the sunny bench by the outer door, but his wise old head recognized the signs which had appeared in her face during the past few weeks, and privileged by his age and long, intimate knowledge of the engineer, whom he loved with the passionate, animal-like devotion of his wild Galway blood, he ventured gently as they sat waiting: "Be good t' him, *señorita*. Ye're a foine young woman, an' 'tis Moike thot's tellin' ye Misther Fabian fairly worrships th' ground ye thread an

"'Twas near kilt he was lasht noight, though he'll niver lit on t' ye 'twas so. But he done ut fer you—eh, Oi don't be wantin' fer him t' hear me!" he ejaculated, as a slow, heavy step behind told them Fabian was coming.

Elena whirled quickly about on the bench, looking up red and confused at Jim, who, catching the last phrase, tried to scowl Mike down, but somehow failed to put any menace into his frown. The Irishman held his ground stolidly, merely asking if he would go in by *lorcha* or on his own pony.

"By pony," was the reply, and the couple waited in silence as the little beast was saddled and brought up. Fabian was assisted carefully into the saddle, wincing with the pain of his lacerated shoulder as he gathered the reins into his sound right hand, and the men stopped work long enough to cheer vigorously as the start was made. Looking back, Fabian smiled in response to their hearty sendoff, unable to acknowledge the salute in any other way.

The journey was painful, for the wound in his neck and shoulder had been merely washed and bound up, leaving him so stiff and sore that his entire left side felt benumbed with the excruciating stabbing pains that darted through him as the ponies jogged easily toward the city. Every time his horse put a foot down the jar stabbed him with a white-hot needle of agony, and Fabian kept silent by the grimmest effort, shutting his lips tightly lest she should see how he was suffering.

Her heart singing as she brought him safely back from the bloody scene of the conflict, Elena could think of nothing at all. It was enough to be there beside him. Suddenly, as they had almost reached Meridiana once more, she turned toward him with a quizzical laugh.

"I have had a proposal of marriage to-day," she teased. "Before breakfast, too."

"A what?" he groaned, a sharp spasm of pain making his words sound hollow.

"An offer of marriage, if you please. The greatest man in the country has done me the honor to demand my hand. He wishes the Bishop of Meridiana to officiate. Oh, he has all the plans laid out beautifully. It is to be a cathedral wedding."

Her face was averted, and she missed the first effect of her astonishing announcement.

"Who is it?" he asked painfully.

Turning, she looked at him with fathomless eyes. "Don Moisés."

"Fajardo!"

Expecting him to ejaculate at the effrontery of the man, and then say something vigorous, perhaps, she regarded him with a smiling assurance he misunderstood. He swayed in his saddle, his face pale and drawn, his lips compressed and bloodless.

He was cold and sick, his head and shoulder throbbed, and his heart paused as he asked faintly: "And you, are you willing, little sister? Shall I congratulate him?"

He turned his hopeless eyes upon her, and at the look of despair and pain in his face she cried out with dismay: "Don Jaime! What is the matter?"

"Isn't it matter enough," he faltered, "to see you willing to marry a man I know you despise? Do all women surrender so easily to the charm of gold lace and position?"

For an instant she hesitated. Then her nervous fingers flew to the bosom of her dress and snatched forth an exquisite Toledo dagger—a fine, thin, damaskeened blade, thickly encrusted with gold that glittered in the sun as she raised it high until he could see the delicate tracery and chasing of its iron-gold pommel and grip

"His letter was an appeal, but beneath it I could see the threat. I do not love him, *amigo mi*. I could not marry him. I will not.

"No De los Rios has ever been afraid to die. I am not afraid to, if need comes."

CHAPTER XXII.

The Republic Lives.

PROPER treatment and dressing of his wound, a long, ugly gash made by a ricochetting ball which had struck end-over-end, tearing the upper muscles of his shoulder, and ending by lacerating his neck close to the jugular, relieved the engineer greatly, and a good night's sleep made a new man of him. He turned stiffly, but full of life, as the sun awoke him next morning; and helped into his clothes by the careful Pedro, looked to both his revolvers with a practised eye.

Slipping one of them inside the sling bandaging his left arm, he dropped the other into his hip-pocket and started for the Ayuntamiento to seek news of Bob, who, only stunned by the fall of his horse, had been taken prisoner and brought into town. The foolish fellow was in a bad position, and Fajardo would probably not be in a humor to appreciate Fabian's efforts at releasing his injudicious countryman.

Evidently the president was in grim earnest now, not only with regard to Pettit, but also toward Elena, and the engineer sickened a little as he thought of the brutality of the man. Having tried every other means unavailingly to rob the girl, the wily old politician had offered marriage as the quickest and surest means of accomplishing his end without danger or difficulty. With the power absolutely in his own hands, he would know how to deal with a refractory wife, and no one could gainsay him.

But the cathedral chimes would not peal for that wedding, nor for her funeral, either, was Fabian's decision as he passed gingerly down the stairs. Not even a grand dictator would care to force a woman of position and means into suicide to escape his attentions.

At the door of the club he ran squarely into Consul Hemenway, and a tall,

fair-bearded stranger in the uniform of a captain in the United States navy.

"Hallo!" called the consul cheerily. "Just coming in to see you. Heard you were done up in the fight. Captain Hull, shake hands with Mr. Fabian—assassin, revolutionist, railroad builder, hero, and I don't know what all."

"Cut it out," laughed Fabian, extending his sound hand. "I'm very glad indeed to meet you, Captain Hull. You are just the man I was hoping would be here. When did the Greenville get in?"

"Just now," answered the naval officer, wringing his hand heartily. "I see you are really wounded. Hope it's nothing serious?"

"No, nothing at all. Only a ragged flesh wound I got in meddling. I tried to help the regulars drive off the insurgents, and this is my souvenir."

Rapidly he recounted the events of the past two days, Hemenway and Hull looking significantly at one another as he finished.

"Now I'm going to beard the lion in his den, to tell him hands off Pettit. There may be things doing, but I don't expect much trouble."

"That's the most exciting story I've ever heard," commented Hull. "And you still have the nerve to go and face the man who has sentenced you to death and ask him to liberate a man you admit knew the chances he took?"

"Certainly I have. He's only a boy in experience. It tickled him to think he might be hailed as a great liberator—a second Bolivar. He's learned his lesson this time, though, or I'm mistaken. And I'll get him off, too. See if I don't."

"I wish you were in the service," Hull answered enviously.

"Are you armed?" interrupted Hemenway, with grave face.

"Yes; why? Is there anything new I haven't heard of yet?"

"Well, the situation is pretty badly complicated," assented the sea-dog. "I can't help feeling you may make things worse by interfering now."

"How long do you suppose Pettit will live after sundown to-night if I don't interfere at once?" demanded Fabian.

"You're right," Hemenway nodded approvingly. "Better hurry over to the Ayuntamiento now and see how things stand. You'll be surprised."

"What's up?"

"Oh, nothing that will affect you especially, but it will pay you to be a little cautious at first. Go slow, man."

"I can count upon both you gentlemen for help if I need it, I suppose?"

"I can take no action until there is real danger to you," objected Hull. "As for your friend, I can't lift a finger for him officially. But possibly this is a case where my moral influence may do him some good. I'll give you what help I can."

"Well," mused Fabian aloud, "that means good straight Yankee talk and threats, if nothing sterner. It won't take much to fix things, I guess."

Swinging slowly to face the sprawling government palace, he added: "I'll go right over now. Probably Hemenway has told you what this rumpus means to me?"

The seaman laughed pleasantly. "He has that. Good luck!"

More worried than he cared to admit, Fabian walked carefully across the plaza to the Ayuntamiento, directing his steps toward the curved marble staircase leading to the president's chambers. As on a previous occasion, it was filled with a throng of natives.

Uneasy and shifting, glancing about and talking in whispers, the crowd was evidently expecting something unusual to happen. The big doors above were closed, and access was impossible because of the packed stair and waiting throng at the top

"What a volatile people it is," was the engineer's first thought. "How ready to accept a change of government, a revolution, a new dictator—any sort of alteration in the affairs of the republic!

"What difference to them if Pettit or Fajardo were in power? One might be as big a rascal as the other. It really was of no importance to the mob who ruled, so long as affairs kept in their usual channel, business was not too much interfered with, and no serious tragedies troubled the city. But what did this demonstration mean?

"What are we waiting for? What is the matter?" he inquired of his next

neighbor on the lower steps, a merchant of the better class.

"Do you not know, *señor?*" the man asked curiously. "I thought you knew everything. You have been in the battle—you ought to know. It is the end of the revolution. We are to have a grand dictator until the country is quiet again. The new government, the provisional government, is to be declared to us"

"Indeed! I supposed President Fajardo was still in power. I had no idea a new government was going into power. What does it mean?"

The merchant began explaining, but his words were lost in the creaking of the big mahogany doors above. Fabian, forgetting that he had been seeking news, stared with the rest as Fajardo stepped out between a strong double guard of his pet lancers, advanced to the edge of the balcony, and shouted in ringing tones:

"The republic lives! Long live the republic!"

"*Viva! Viva la Republica!*" yelled the crowd, in a chorus of mingled cheering and hisses. "*Viva el Presidente!*"

Extending his arms high above his head for silence, Fajardo gradually made himself heard, stilling the tumult beneath him by sheer force of will. One by one he proclaimed the names of his new ministers for provisional service, declaring himself dictator with a flourish, while the crowd hooted.

"But there is one thing more," he shouted in conclusion, as the throng began to frill at the edges and crumble away. "In this palace I have captive the late leader of the revolution. He attempted to overthrow the government. He killed many of my ministers. He disturbed the entire country

"He is guilty of high treason. Tonight he dies. At sunset, on the seabeach beside Fort Real, he will be shot So perish all enemies of the republic!"

CHAPTER XXIII

Trumps Are Called

"AND to think they used to call me 'Lucky Fabian,'" muttered the disheartened engineer to himself as he turned away from the palace and walked slowly across the square, to sink down weakly at a convenient table in front of a café whose awning looked invitingly cool.

"Have I got to go through with a whole lot more complications to get the idiot out?"

He leaned his head against his hand, for the second time since he had reached Meridiana anxious to quit the struggle that he had always loved, and not caring a penny whether the country sank or swam, in his despair of ever being able to get things straightened out and make the railroad a success. Had it not been for Elena he would have quit, but how could he when she was depending upon him? He would go on to the bitter end, fighting Fajardo and working like a slave, he supposed, but it was maddening to have this complication of Pettit's come up just when he was beginning to see daylight and had the backing of the community.

A lancer, gay in his red breeches, sky-blue tunic with white braid frogs, and big, dusty, black cavalry jack-boots, entered. Fabian crooked a tentative finger at him, and the man came over to his table and sat down with a sigh.

"It is a very warm morning, *señor*," he began, but Fabian cut him off shortly.

"Order something for yourself—anything you like. Then tell me just what has happened. Since the battle I know nothing I have been in bed."

"I thank the *señor*," courteously replied the big lancer, doffing his brass helmet and easing his tight blouse a little that he might enjoy the drink more thoroughly, and giving his order.

"And now, *señor*, I am at your service. You wish to understand what has happened?"

"Yes, yes—go on," snapped the engineer, impatient at his native slowness.

The lancer paused to gulp down a portion of the cool drink placed at his elbow by the lad Rubbing his grimy sleeve across his lips, he continued slowly, without interruption from the engineer, who knew the story would have to tell itself, and that questions would really only delay matters.

"There is little to tell. After the battle the prisoners who were able to

travel were brought into the city. The Señor Mariscal de Campo Pet-teet, of the rebel army, is lying even now in a very safe room in the palace, waiting to be interrogated, and shot at sunset. There will be no slip this time, unless—"

The coppers in his pocket suddenly jingled suggestively as his hand, apparently in a perfectly innocent and meaningless gesture, brushed past his leg. No one could have accused him of inviting temptation.

"Unless what, my man?"

The lancer shrugged his shoulders and inspected his emptied glass carefully. Fabian promptly beckoned for the waiter again and, when he departed, leaned closer.

"Do you know whether he is guarded now?"

"*Si, señor.* Oh, certainly; of course Am not I, Sergeant Tomás del Rosario, in charge of the guard myself?"

"Well, sergeant, you are a poor man, are you not?"

"Does the *señor* need to be told?" was his smiling reply.

Covertly the engineer slipped a fifty-peso note into his ready hand. "There are fifty pesos, as much as you make in five months of soldiering."

"*Muchas gracias, señor. Mil gracias.* What does your excellency desire?"

"I wish to talk to the prisoner for a few moments—now!"

"But that is impossible, *señor.*"

"Not at all."

"Why not?"

"Because there are fifty other pesos where these came from, to get me in. You can make some excuse to the sentry and come in with me. You speak no English?"

"Not a word, *señor.* I don't know—perhaps it might be arranged," he muttered doubtfully.

"Well, you get the rest of that drink under your buttons, and then come along. I'll go right over with you."

"But the *señor presidente!*" objected the sergeant in alarm.

"He will be busy. I shall have to take that chance. If he catches me I shall be a good deal worse off than you. Don't you know I am under sentence of death even now?"

Draining his glass, the sergeant nodded, and they passed quickly up the now deserted stair and along the dim corridor, coming to a halt at Pettit's prison door without seeing a soul except the sentries.

"Jim!" cried the trussed-up prisoner, as the door swung softly open and the two came in. "You got me into this hole—now get me out."

"That's what I came for, though you don't deserve it, you rebellious hound!" was the indignant rejoinder. "But before I do anything you must make me a promise."

"Cut me loose first. I can't talk, or even think, tied up this way."

Stooping, Fabian set his friend free despite the fervid objections of the sergeant, who already had the extra fifty pesos safely tucked away inside his shirt. Pettit rose to his feet unsteadily, thrashing his hands about to restore the circulation.

"My legs are asleep," he growled in a surly tone. "Cursed shame to tie a fellow this way. Now, then—"

"I can stay only a minute. The sergeant is uneasy already. If I get you out of this, it will be to box you up somehow and send you out to the Greenville as fresh vegetables or coconuts or something. But you must leave the country instantly. If you don't I shall wash my hands of the whole business."

"But—"

"There are no 'buts' at all. You've simply got to do it, or stay here and take your medicine. And, remember, I'm not getting you out because you deserve it, but to save you from torture and death. That's what it means if you stay here six hours longer. Do you see it my way now?"

For a moment the captive was silent. At last he was beginning to see the matter in its true light, to realize his desperate position. He could not understand how things had come to such a pass so quickly, forgetting that he deserved death for his insurgency, but Fabian was never a joker, and if he said it was as bad as that there was only one thing to be done.

"Yes, I'll agree, because I have to," was his rather ungracious response. "But it would be a risky thing to send me out in a crate, for then both you and Captain

What's his name might be made to suffer if a diplomatic protest were made later. I can give you a better idea:

"Get me out of this, and I'll sneak aboard the Greenville as a stowaway. Officially, nobody need know anything about it, and I can concoct a good story as to how I managed to escape from this room and swim out to the ship. They can land me at Buenos Ayres, I suppose, can't they?"

"That's all right, if you mean it, Bob. But I won't take any chances on your getting back into the field again and raising Cain with your miserable army. That's done for.

"Your soldiers are in jail or enlisted with the regulars now, and you have absolutely no chance. If you give me your word of honor not to play me any tricks I think I can fix things."

"*Señors*, hurry," whispered the sergeant nervously. "The guard will be changed in five minutes now. We must go."

"All right," replied Fabian. "I have decided to take my friend with me, sergeant. You must get me a cloak to throw around his shoulders. I give you my word no one will see him again in Meridiana. Come!"

"*Señor!*" gasped the man.

"It's all right," the engineer assured him soothingly, thrusting a third fifty peso note into his hands. "Just do as I tell you, and leave the rest to me. If we are caught, I'll try to look after you. But we won't be. Get me that cloak—quick! Bob, can you walk?"

"Sure. It's only my shoulder that's sore. I got it when my horse threw me. Wait a minute. There may be some clothes that will serve the purpose in this wardrobe here."

He darted across the room, and pulled from their hiding-place in the closet a long military cloak and an officer's cap. From a pocket in the remnants of his own uniform he drew out his little field toilet-case, and with the scissors it contained quickly cropped his mustache short, clapped the cap jauntily on one side of his head, threw the sweeping cloak around his shoulders, drawing its folds well up over one arm to muffle his mouth and conceal half his face, Spanish shepherd fashion, and whispered with a theatrical air that burlesqued his former serious pomposity:

"Now, then. *Adelante! Vamos, mis bravos!*"

CHAPTER XXIV.

Flying Fish.

WELL offshore swung the huge bulk of the great white Greenville, her slender, towering funnels festooned with lazy wreaths of smoke that looked almost white in the brilliant moonlight. Along the slim white streak of her hull lights twinkled merrily, and at half-hour intervals her mellow bell pealed out the time in rhythmic strokes.

On the quarter-deck and poop Japanese paper lanterns flickered gaily, white-clad women and uniformed men in bright colors whirled in the dance, while the marines' band played for them. It was Captain Hull's official greeting to President Fajardo and his state, the courtesy of one friendly nation to another.

But the sentries at the gangways and the lookouts on the bridge seemed to be unusually lethargic this evening, for not until it had approached within a cable's length of the enormous cruiser did the man on the starboard bridge sing out:

"Boat ahoy! What boat is that?"

Clear and low over the smooth waters of the bay came the reply: "Greenville!" The sentry chuckled, making no reply.

Slowly, and with muffled oars, the boat crept closer and closer. Two or three seamen forward had heard the hail and the reply, but after a casual glance they returned to their yarning under the lee of the topgallant forecastle, placidly smoking and listening to the boatswain's mate in charge of that section of the watch.

A slight splash in the water caused the lookout to lean a little farther beyond the rail of the bridge. Something had slipped quietly out of the boat, and a dark object was swimming steadily toward the chain-cable with slow, rather one-sided strikes. As it reached the slanting cable it paused a moment as if for breath, then began a laborious climb upward.

It was a man, evidently disabled in one arm, for he used it but little as he crept upward, and finally disappeared through the yawning mouth of the upper hawse-hole. Again the lookout chuckled gleefully, muttering softly as he resumed his steady pacing: "Safe, by golly! And now fer th' coaling t'morrow."

It lacked a few minutes of eight bells, midnight, when Captain Hull stepped up to the starboard bridge for a breath of air and a glance around the horizon.

"Have you seen anything?" he inquired carelessly of the lookout.

"No, sir," replied that worthy gravely. "That is, sir, nothin' but a flyin'-fish, sir. He come a swimmin' along just after five bells, sir, an' I saw him give a tremenjus leap an' fall inboard through the upper hawse-pipe, sir."

The big captain's eyes twinkled. "I hope nobody hurt him. Nobody saw where he fell, or what became of him, I suppose, did they?"

"Not's I know of, sir. Leastways, there wasn't no noise."

"Very good," his captain answered gravely. "It will not be necessary to mention it, sir."

"Aye, aye, sir," was the lookout's equally grave response.

Good coal was scarce and hard to get, now that the railway had become an established fact to the state and, in spite of his fuming, Captain Hull was forced to swing idly at anchor, waiting for an overdue collier before he could get enough to go on southward to the Argentine. It was not tedious waiting, for Hull and Hemenway, the consul, had been boyhood friends, and passed the time pleasantly, while the men on shore leave woke up the dull little seaport as it had not been wakened for years.

As the days passed, and every smoke that showed around the outer end of Cape Valiente proved a false alarm, the men ceased to watch for the collier, and settled down to amusing themselves without regard to the drain on Uncle Sam's pocket.

But at last she came in, arriving on the very day that Fabian, with a sigh, laid the last spike in position, and drove it home with his own hands, proclaiming the line finished and his work for Meridiana done. There was still plenty of money to his account in the bank, the revolution had failed, his task had been completed in record time without a flaw, and he stood back as the first of the American passenger locomotives drew up at the temporary depot at La Esmeralda, with its first through train.

He was justly proud, and jubilantly waved his helmet as he recognized a slim, dainty figure hurrying toward him with outstretched hands. It was Elena, coming out to be the first one to congratulate him, as she had promised the evening before. Confidently he stepped forward along the ties to meet her. Glancing nervously back over her shoulder as she came, the girl hastened her steps, but as Fabian met her, with a smile upon his lips, he saw that she was pale and excited.

"Oh, save yourself!" she cried hysterically, stumbling toward him. "They are just behind me!"

"Save myself!" he echoed. "What for? From whom?"

"The troops. The president—they will shoot you to-night!"

He laughed grimly. "They are too late. The road is finished, little sister. All done, every inch of it. I drove the last spike myself."

"Oh, why will you not understand?" she wailed, seizing his arm. "Don't you see that the soldiers are almost here? Run!"

Evidently something was the matter, and he changed his bantering tone to a more serious one.

"What is it? Tell me—I don't understand. What is the matter?"

"The president — Doña Inez — my spy!" was all she could gasp at first.

He looked back toward the train. Sure enough, a little knot of half a dozen infantrymen and an officer were coming leisurely toward him.

"Well?" he prompted gently. "Your spy told you that the president had—"

"He has decided you—must have smuggled the Señor—Pettit away. That you are responsible for all—the revolution. You must be shot. He will stop this insurrection business at once. He sent these men to get you. They will shoot you at sundown, after he has put you—to the question," she panted.

"H-m-m-m! Does any one else know

of this new scheme?" he demanded coolly.

"Only one—the captain of your warship. I met him coming to the station, and begged him to do something."

"What did he say?"

"He—he *swore*. Then he started right back for the vessel, and called over his shoulder that he would bring a hundred men on shore and wait in front of the Ayuntamiento."

"Bully for Hull!" he exclaimed cheerily. "It's all right now. I can go with them in perfect safety."

"No, no; it is different this time. He will do it now. You do not understand. You must not."

"Pshaw!" he laughed; "you are just a little overstrained."

Tears sprang into her eyes as she pleaded with him passionately. "If you go, I shall go, too. You shall not take such a risk alone."

A great light dawned upon the engineer's apparently worse than stupid brain. In an instant he realized what for weeks had been perfectly clear to every one else, and too dazzled by his discovery to notice what was going on around them, he stepped toward her just as the soldiers came up.

"Here, ye half-breed scut! none o' thot!"

With panther-like quickness, Mike sprang forward and knocked aside the intruding arm of the foppish young lieutenant as he reached out to place Fabian under arrest.

"Oi'll break ivery bone in yer miser'ble body av ye touch him. Misther Fabian, excuse me, but Oi'm askin' ye shall we lick th' greasers agin? This here little beast wants ye, Oi'm t'inkin'."

"Eh? What is it, Mike?"

Turning quickly around, he saw what it meant.

"Oi'm askin', sor, shall we lick thim agin? Oi don't loike this little naygur's swate moog. Oi t'ink he manes thrubble, sor."

"No, it will be all right this time, Mike. I'll go along peaceably."

Turning to the officer, who stood with a sneer on his supercilious face, Fabian said curtly: "Now, young man, what do you want?"

"You — murderer and insurrecto!" was his insolent reply. "Men, put the *esposas* on him. And you, *señorita*, I will take care of you. This fellow can go with the men, third class; we will go first."

"You hound!" ejaculated Fabian fiercely. "Take your men away and I'll kill you for that!"

"Be silent! You die at sunset!"

Fabian laughed. He had seen the stealthy movements of his men while the fop was feasting his eyes on Elena's delicate beauty.

"Look around you, fool, and see what will happen to you and your men if I give the word."

Startled, the young fellow looked. From the station, out of clumps of herbage beside the track, beside piles of ties and rails, and from behind an upturned hand-car peeped the ugly black muzzles of twoscore rifles. Back of each muzzle was an American finger waiting to press, and an American eye, skilled and cold and true.

"*Ma'e de Dios!*" cowered the braggart, terrified.

"I will go with you peaceably, but the moment you try to put those manacles on me there will be trouble. And this young lady goes with me. How you ride I care not.

"I shall drive the engine, in the cab, and this lady will stay with me. You may sit on the coal in the tender, if you choose," he finished, with a splendidly indifferent air.

A roar of laughter from the gang added nothing to the officer's good temper, but paying no heed to either his mutterings, or Elena's still tearful pleadings, Fabian lifted her lightly to the cab, spread a piece of old canvas to protect her skirts, vaulted in beside her, and shouting to the soldiers to look sharp and climb aboard if they wanted to get back to Meridiana with him, pulled the throttle open and started the train.

Exhilarated by the lurching swiftness of the locomotive, Fabian opened the powerful machine up to her limit, grinding over the solid track at full speed, making the light cars behind him dance and sway like a child's tin toys. Thirty, forty, fifty miles an hour she showed, and still he held her to it, his hair flying as he leaned from the cab window,

driving the big eight wheeler as if on a speed test. Elena seemed to absorb something of his reckless gaiety and enjoyment, for she placed her hand beside his on the throttle-lever and leaned with him from the window.

CHAPTER XXV.

The Deuce of Hearts.

DRAWN up in hollow square before the Ayuntamiento were an even hundred sailors and marines from the Greenville, conspicuous in their spotless white uniforms and hats, their cross-belts and ammunition clip-pouches, their glistening gun-metal bayonet scabbards. Stacked before the ranks were their carbines, and pacing up and down, like a caged animal, was Captain Hull, impatiently waiting

"I thought you were never coming," he bellowed cheerfully, as soon as the party came within ear shot. "I thought maybe that gang of yours had started another battle."

"Oh, no. There wouldn't have been any soldiers left if they had," Fabian laughed back. "I came willingly enough this time, knowing you were here. But this young lady thinks the old rascal really means business this time."

"So she said," replied Hull. "She said if I "

Like a flash Elena was upon him, standing between him and the engineer.

"You must not repeat what I said, sir!" she exclaimed furiously.

The officer laughed in pure enjoyment of her discomfiture.

"Well, well, I won't, then. But I didn't wait a minute. I say, though, it's likely to be awkward for me in Washington if things go wrong, and I really have to use force."

"They won't," responded Fabian easily. "Now, come along. Let's have it over with quickly. I want to leave this miserable country."

Don Moisés sat frowning over some papers as they entered, following the lieutenant so quickly he had no time to report

"What does this intrusion mean?" thundered the president, rising to his feet. "What is all this?"

"It means just this," burst out the fiery Hull. "You have been persecuting Mr. Fabian here for the past four or five months without the slightest reason except that you are trying to hound him out of the country and prevent him from building his railroad.

"Don't you know you can't do that with an American citizen? I know what I'm talking about. Don't interrupt me," he growled, as Don Moisés raised a protesting hand.

"You have twice tried to kill Mr. Fabian. You have attempted to destroy his railroad, and somebody did ruin part of it once. You have put every obstacle in his way, and kept him in fear of his life, and now you have capped the climax by sending this insolent young officer out to arrest him and shoot him at sunset like a dog.

"But, by the Eternal, sir," he roared, working himself into a fury, "you can't do it! I won't stand for it. I shall protect him fully. Do you understand me as well as I understand you and your plans, sir?"

In his anger his voice had risen until it rang through the big room gustily. But as the American's temper increased, Don Moisés grew calm, and when his accuser had finished the president sneered craftily:

"Am I to believe that you are typical of the North American officer and gentleman, and at present diplomatic representative here of your country? Is this the way North American officers usually conduct themselves?"

Hull's rage was too great for his utterance, and he sank apoplectically into a chair, while Fajardo went on, still standing.

"You state many things as facts, sir, but I defy you to prove them. This man is a traitor. He has been in league with the revolutionists. He even dares admit he knew what this Señor Pet teet—whom he aided to escape—was coming here for.

"That makes him a traitor. I can have him shot if I choose. And I choose," he added slowly, "to have him executed publicly at sundown to-night. As for the young woman, I shall honor her in marriage.

"With a good, but firm, husband, she can do no more harm." He pressed a

button, and two soldier orderlies entered. "Take this man away, and tell Lieutenant Fóscara to shoot him on the beach at sunset."

"Stop!" interposed Hull in a voice of thunder, but now cool and determined. "Change that order! How long do you suppose eighteen-inch stone walls will stand up against eight and ten inch shells?"

"I do not comprehend," Fajardo answered stiffly, staying the men with a gesture.

"I mean that if you do not instantly recall that order my men will open fire with a rifle volley upon this palace and retire. As soon as their shots are heard the Greenville will commence firing with every gun that can be brought to bear. We mount four ten-inch, eight eight-inch, sixteen six-inch, and a few other guns.

"I will have the place about your ears so quick you won't be able to get away yourself. My men are hungry for a good chance at target practise, anyway. I have the best gunners in the whole United States navy aboard at the present moment, just waiting at their guns for a chance to smash this town of yours into flinders."

For a moment the president hesitated, rage and fear alternating on his evil face, his sinister mind attempting the impossible scheme of tricking the bluff captain and outwitting him so as to accomplish his purpose before interference prevented. But Hull was in deadly earnest, and it was no use, so he wrote, at the captain's dictation, a passport and a free pardon for Fabian's imaginary crimes.

"There is another bit of news for your excellency," Captain Hull beamed, in high good humor now that all danger was past. "I have kept it for the last, because it is really the most important. Our signalman spoke the British protected cruiser Harrier by wireless about an hour ago.

"She is coming just as fast as she can steam, and her commander will want to know something about the destruction of that section of the railroad. I would advise you not to monkey with that line any more, but just to get ready to pay for your little frolic without making any more fuss. Now, good by, sir. You two children come with me."

Taking Fabian by one arm, and Elena by the other, he led them hastily down the marble stairs and out into the street without saying a word himself or giving them a chance to protest against such apparently cavalier treatment. Releasing them as he reached the sidewalk, he beckoned to a carriage standing across the plaza, and as it came tearing up for its fare the naval man observed dryly:

"I've got you out of this mess safely, young man, but I have something to say to you. The next time you come fooling around in the tropics, just think it over and know what you're about first. I'm old enough to give you good advice, and expect to have it taken, too," he laughed, assisting Elena into the vehicle.

"Take the young lady home now, get cooled off yourself, and bring her out to dine with me and my officers aboard the Greenville to-night."

Fabian would have spoken, for he was angry, and little relished the tart good sense of his self-appointed mentor, but Elena, grateful beyond words for the rescue under such apparently hopeless circumstances, kissed her hand coquettishly to the navy man, hiding her hysterical desire to weep with an assumption of gaiety that deceived no one, least of all the engineer beside her.

Briskly the pony trotted out to Don Jacinto's, and neither Jim nor Elena spoke until, in the cool sala where he had spent his first delightful days in Meridiana, Elena began to apologize for the dangers to which she had so unthinkingly exposed him.

Her mood was baffling: one moment apologetic, the next tantalizing, the next inexplicably gay and careless. Could he have been mistaken after all in what he thought he had seen when she came out to warn him only a few hours before?

Had her anxiety been merely the perfectly natural feminine wish to have no blood upon her hands? Was she really a heartless coquette? He saw his hopes crumbling to ashes, but he determined to put them to the test once for all.

Juanita had taken her mistress's hat, and even before Elena had turned from the long pier-glass, where she was arranging a stray lock of hair, Jim began.

"Elena," he said, his hands locked behind his back, "this is torture for me. Have I been living in a fool's paradise these four months? Do you enjoy seeing men suffer?"

Slowly she turned from the mirror to look at him, her big eyes open wide with surprise. "Torture for you? I enjoy your suffering? What an idea!"

There was something about him that frightened her, and she fenced for time.

"Yes—torture for me. Why do you do it? I won't be played with any longer. I can't stand it. I love you! Do you love me?"

She had realized that it was coming, but when the words burst bluntly from his lips she was unnerved, almost frightened. He was frowning, and his deep voice thrilled her as he demanded his answer. She did not wonder men obeyed him.

"But you know absolutely nothing of me—who or what I am," she objected faintly. "You don't even know my real name yet."

"I don't care who you are. I love you! I know you are pure and good and true. You are the only woman I have ever seen I could love.

"I love *you*, no matter who or what you are. Marry me! We'll leave this accursed country and the railroad forever. We'll go next week, on the Estrella."

"But " she faltered

He stepped toward her, his arms extended, his eyes burning

"My love—come! Come with me. Be my wife. I want no explanations. Sweetheart!"

She stood silent, apparently hesitating, but, carried away by the flood of his long-pent emotions, Jim clasped her close in his eager embrace, and felt her lithe form yield slowly to his mastery. A moment they stood silent.

Gently he raised her wet face to his, her lovely eyes swimming in tears. "Dearest, tell me," he pleaded softly

Her fingers suddenly locked about his neck. "I love you, love you, love you! Always you! For months—blind man!" she whispered passionately, hiding her head again on his protecting shoulder.

Out on the Greenville Captain Hull himself met them at the gangway, and presented them to his officers.

"This is Mr. Fabian, gentlemen," he announced briefly, "and the Señorita de los Rios." He hesitated, smiling.

"My fiancée, gentlemen," prompted the engineer proudly, with a look at the girl which sent the blood racing to her temples

Simply he accepted their congratulations, glowing with happiness, and just before six bells struck Hull carried them off to his private quarters.

"Now, what do you intend to do?" he demanded abruptly, as they sat down in the comfortable cabin

"We shall be married, and sail north on the Estrella next week." Fabian replied quickly. "The railroad will have been finished by that time and turned over formally to the minister of ways and communications, so Doña Elena is willing to leave Meridiana then"

"Now, see here, it's none of my business, I know, but I'm mighty interested in you both. Have you stopped to consider what it means if that old rascal, Fa-Fa What's-his-name, finds it out?

"He won't dare to touch you, Fabian. He can't. And he can't hurt the railroad, but he can make a pot of trouble for the *señorita*. You don't want her annoyed, do you?"

"He'd better not try!" snapped Fabian

"I can tell you how to prevent it. As soon as she marries you she becomes an American citizen. He won't dare annoy her then. Why not get married to-night—here? We carry a chaplain, you know."

"Captain Hull!" cried Elena, the blood rushing hotly to her face.

"Why, it's all right, my dear young lady," he laughed eagerly. "You will be on American territory on this ship The service will be as regular as if it were in your own cathedral.

"I'm almost old enough to be your father, and I don't want to go away feeling that perhaps you will have more trouble before you leave. It's your duty, sir," he added sternly, wagging an impressive forefinger at Fabian, "to protect her, and that's the best way to do it.

"The men were greatly disappointed

at not getting a shot in your behalf, *señorita*. I know it would gratify them immensely if you would let them come to your wedding. They would never forget you. And I could sail certain you are safe."

Timidly she glanced at Fabian, and he, taking the bit in his teeth, replied: "She consents, captain."

There was piping of calls overhead, and when Hull came back for them with the announcement that everything was ready, the crew stood at general quarters in clean white mustering clothes, six hundred interested spectators, while the chaplain solemnly pronounced the words that bound with something stronger than steel the agreement Fabian had entered upon in the telephone-booth at Prince's.

Up into the sultry night soared the good old three-times-three, as officers and men pledged the daring engineer and his bride, speeding them ashore with hearty good wishes as the wedding feast broke up and the stars turned pale.

There was little more to do on the railroad but to clear up a few odds and ends of switch work, and this done, his accounts squared, the men paid off and rewarded and shaken by the hand, Fabian leaned over the rail of the dirty little Estrella del Sud, bound north, Elena's arm close within his as they watched the twinkling lights of Meridiana fade into the smoky sky astern, his heart content. Silently they watched the scene of their contest with Fate growing dim and ghostly, shimmering over the frothy seas like the wraith of a town that had been.

"Dearest," she suddenly cried, "now I insist upon an explanation and an apology. I had no idea we should ever—ever be married"—she flushed, clinging a little closer to him, and hiding her face—"when we were thrown together first, or I would have given you some idea of who I am, for you really know nothing."

"What does it matter, sweetheart? You are my wife now, and you can't get away. That's all I care a snap about."

"Twenty years ago," she went on, ignoring him, "my father, then the Duque Francisco Jorge Condal de los Rios de Toledo"—Fabian whistled, suddenly awakening to the fact that she had mentioned the greatest name among the haughty grandees of proud old Spain—"was exiled for political activities distasteful to the crown, his estates were confiscated, and he came here to Meridiana broken-hearted, where my mother died, and he later discovered those emerald mines. You know the rest of the story. Am I forgiven?"

There was no hesitation in his reply: "Yes—certainly. I should have been afraid of you if I had known. I'm glad I didn't."

He broke off to gaze at her again, wondering what his friends would say to his amazing good fortune. "And did it ever occur to you, dearest," he went on in a moment, "that I, too, might perhaps be keeping something back?"

"No. Are you?"

"Well, I happen to be the engineer Murchisons had engaged to build this very line. You simply brought me out here three months ahead of time. You remember those credentials you thought I had forged, don't you?"

She gasped with astonishment. "And you knew all the time that you were coming to build it, and never told me?"

"Certainly. You were so mysterious at first that I thought I would follow suit. It takes two to play any game, you know. When I got down here, and found out what you wished me to do, I cabled Murchison that I was on the job, and he came over himself to arrange matters, and stayed for the dedication of the first section. You met him."

"Mr. Murchison!" She stared incredulously, balking at the tangled identities. Suddenly she understood: "Mr Ffrench—you pretender!"

"We were both pretenders, dear." He kissed her softly, and as she raised her starlike face to his she whispered:

"I have still one more confession to make. After all these years the king has restored us everything. I have just received his majesty's full pardon. Will you come with me to Toledo for a while?"

"A 'Castle in Spain'?" he smiled back at her. "Aye; what man would not go through fire and water for a 'Castle in Spain' with his love?"

(The End.)

ON THE EDITORIAL CARPET.

Some Letters from Friends Who Wish Us Well and from Critics Who Mean No Ill.

WHAT WE SHALL DO IN MARCH.

EVERY month we attempt to do something new, not always startling, perhaps, or sensational, but at least we endeavor to throw light on some unilluminated corner of the railroad world. In January it was the Free Rider, the gentleman who beats his way on freight-trains without money and without pass. This month we are paying our respects to the men IN THE SWITCH-TOWERS

Next month we hope to turn to the personal side of railroading and give you a picture of THE FATHER OF RAILROAD TIME. We shall tell you by what means Mr. Allen induced the railroads of the country to accept his division of the United States into four zones, with the same time throughout each separate zone

That looks like a simple sort of a job, doesn't it? Like all great things it is easy after it is done. Mr. Allen found it anything but simple in accomplishment, and one well-meaning ministerial opponent accused him of blasphemy for attempting to interfere with the affairs of Providence. That is the story with which the magazine will open.

If we tell you that another important feature in the March number will be an article on THE FIRST RAILROAD ACROSS THE AMERICAN CONTINENT, what would you say the name of that road was? Most of you probably would guess Union and Central Pacific, but you would be wrong. The first railroad across the continent is forty-seven miles in length, and is now owned and operated by the United States government across the Isthmus of Panama. To quote an old railroad joke: "It may be a short railroad, but it is as wide as any," and its history is far from uninteresting

We expect to return to our HELP FOR MEN WHO HELP THEMSELVES department in the March number, and will offer you an article on laying out a railroad line. As you would probably guess, this is a straightforward, accurate account of the work of railroad surveyors in locating and mapping the route which a new road is to take. The task of the engineers is often a hard one, and on the care with which their work is done depends much of the future usefulness of the railroad. While this article has been prepared especially for young men who are thinking of trying for places in surveying corps, the facts that it contains should be interesting to all of you

Although we are just getting back home again in this number, after following Mr. Gilson Willets AROUND THE UNION BY RAIL, we shall be off again next month at his heels in the third annual tour, RIDING THE RAIL FROM COAST TO COAST. This time we start from Boston, where Mr. Willets lingered a few days to collect stories that should illustrate the ways and vicissitudes of RAILROADIN[illegible] previous journeys with Mr Willets, you will find him an even more capable courier on this, his third trip in your behalf.

We cannot go in detail into all our special articles for March, but we should like to say, that among the MEN WHO HAVE MADE TRAVEL SAFE, we have found George Westinghouse, the wizard of the air-brakes, one of the most important as well as attractive personalities. We will have an account of his work in the March number

Then there will be another chapter in THE STORY OF ELECTRICITY, describing the great part played in modern life by the telegraph and the submarine cable We hope to be able to give you some TALES OF AN OLD ENGINEER, more OBSERVATIONS OF A COUNTRY STATION-AGENT, and a true story of the TRIALS OF RAILROAD TRAVEL IN SICILY

In the serial which begins in March, THE MAN WHO DARED, the air-ship plays an important part We shall not tell you how important or in what way, further than to say that it is a story of action and surprises by the author of THE GIRL AND THE [illegible], which you doubtless remember

Speaking of serials, we are moved to say that we are rather proud of our efforts in that direction, not only because we like the results ourselves, but also because the majority of you to whom we speak here seem to be fairly well pleased, if we may judge from your letters. We strive constantly for a reasonable combination of action, ro-

mance, plausibility, and good English, and we think that it shows not conceit, but rather appreciation of the efforts of our contributors, to say that we believe that our wishes are being realized

In fact, we think that it is a long time since we have published a stronger group of short stories than will appear in the March number. All of them are worth reading, and not one of them falls below the standard which we have referred to above. We do not intend to tell you which we think is the best, since comparisons are odious, and such of them as are by our regular contributors are approved in advance.

We would merely take this opportunity of introducing to you two new names in our March list, which you will find in the table of contents immediately after the titles KIN CLANCEY'S FATHER and SHEILA AND THE SPECIAL. Their work will be new to you, but it, too, is up to the mark.

THE LAST STATION.

TWO months ago we appealed to our readers for a copy of what our correspondent called "The Dying Brakeman" We were under the impression, as he said at the time, that this appeared in the Detroit *Free Press* a number of years ago, under the name of "The Last Station," and was the work of M. Quad or Bob Burdette.

Apparently our surmise was correct, at least as far as the publication was concerned. Many of our readers have furnished us with a copy of the story, and we take this opportunity of thanking them all, individually and collectively. This is the story that has come to us

He had been sick at one of the hotels for three or four weeks, and the boys on the road dropped in daily to see how he got along, and to learn if they could render him any kindness. The brakeman was a good fellow, and one and all encouraged him in the hope that he would pull through. The doctor didn't regard the case as dangerous; but the other day the patient began sinking, and it was seen that he could not live the night out. A dozen of his friends sat in the room when night came, but his mind wandered, and he did not recognize them.

It was near one of the depots, and after the great trucks and noisy drays had ceased rolling by, the bells and the short, sharp whistles of the yard-engines sounded painfully loud. The patient had been very quiet for half an hour, when suddenly he opened his eyes, and shouted: "Kal-a-ma-zoo."

One of the men brushed the hair back from the cold forehead, and the brakeman closed his eyes, and was quiet for a time. Then the wind whirled around the depot and banged the blinds on the window of his room, and he lifted his hand and cried out:

"Jack-son! Passengers going north by the Saginaw Road change cars!"

The men understood. The brakeman thought he was coming east on the Michigan Central. The effort seemed to have greatly exhausted him, for he lay like one dead for the next five minutes, and a watcher felt for his pulse to see if life had not gone out. A tug going down the river sounded her whistle loud and long, and the dying brakeman opened his eyes, and called out.

"Ann Arbor!"

He had been over the road a thousand times, but he had made his last trip. Death was drawing a spectral train over the old track, and he was brakeman, engineer, and conductor. One of the yard-engines uttered a shrill whistle of warning, as if the glare of the headlight had shown to the engineer some stranger in peril, and the brakeman called out:

"Yp-silanti! Change cars here for the Eel River Road!"

"He is coming in fast," whispered one of the men.

"And the end of his run will be the end of his life," said a second.

The dampness of death began to collect on the patient's forehead, and there was that ghastly look on the face that death always brings. The slamming of a door down the hall startled him again, and he moved his head, and faintly said:

"Grand Trunk Junction! Passengers going east by the Grand Trunk change cars!"

He was so quiet after that that all the men gathered around the bed, believing that he was dead. His eyes closed, and the brakeman lifted his hand, moved his head, and whispered:

"De-"

Not "Detroit," but Death. He died, with the half-uttered whisper on his lips. And the headlight on death's engine shone full in his face, and covered it with such pallor as naught but death can bring.

Another version of this story is in verse form, some slight change having been made in the opening situation to impart a thrill to the narrative The first two verses are as follows

The fast mail lay in the side-track, for
the night express was late,
It had reached the lower crossing and
was darting through the gate,
When the brakeman of the mail train,
who was waiting in the ditch,
By the flashing of the headlight, saw the
fatal misplaced switch.

Quick as lightning past the engine,
scorching with its fiery breath,
Leaped the brakeman, threw the lever,
saving scores from instant death,

But alas, the treacherous engine, struck him as it thundered past,
And that noble act of daring, was the faithful brakeman's last.

Then the story follows substantially as in the prose, the last half of the last verse being

Grand Trunk Junction, then a silence, every watcher held his breath,
"Mary, Mary. De—" he faltered. 'Twas not Detroit but Death

Lack of space does not permit us to quote the poem in full

A FEW MORE KIND WORDS.

EVERY month brings its appropriate and acceptable quota of praise and appreciation. A friend in Missouri, who disclaims any intention of writing for publication, has this praise for the magazine:

As a budget of condensed information it is almost priceless, giving as it does to each in due season his share of praise for services rendered, it but echoes my sentiment that it is better to scatter the roses along the pathway of the living than to wait until the funeral to bestow the wreath. To find fault with the short story department is quite impossible, while the serial numbers are so intensely interesting that it is always with a sigh of regret that I read the word "finis."

I will not wish you success—you have already attained that, but hope you may continue to give us such marvels of fiction as BY RIGHT OF PURCHASE, THE GIRL AND THE BILL, THE PRETENDERS, SONS IN EXILE, etc., and may the white light always shine clear, giving THE RAILROAD MAN'S MAGAZINE the right of way over all other magazines.

After such undiluted praise it is well to turn for a moment to a letter with a slight touch of acid in it. A California friend assures us that we

Have made a highly successful magazine out of a venture he had at first thought would be a failure, and for this you deserve great credit. The magazine fills quite a blank that existed in literature for and regarding the men of the rail. There is only one fault that I have to find with it and that is this: I cannot reconcile myself to read a single one of your miscellaneous short stories, since I find them to deal with subjects apart from railroad matters.

The Lord knows that there is a fertile field for stories of all kinds and an unlimited number dealing strictly with the railroad man. Let us have more shop talk, and let the men who want literature of a different kind go to some other magazine (say, some other of Munsey's numerous ventures).

The chorus of praise is swelled by a brief but well-sounded note from Pennsylvania:

"The more I receive of them the more I like them," says the letter, referring to the copies of the magazine which he has received in the past. "I think every railroad man should invest in them, as they can all learn something. I had often thought of such a magazine, and for one, I am glad you have commenced the good work. May it long continue."

We are always glad when a subscriber finds something special to praise or criticize. Says a St. Paul friend:

I have been a reader of your magazine from the first number and have found it to be one of the best I have ever come in contact with. I was especially interested in the article entitled RAILROAD MEN OF THE OLD WORLD, appearing in this month's issue.

At the risk of being considered presumptuous I am writing to request that you publish some data concerning the clerical force of the railroads in the Old World, and the methods of accounting in use there. I am sure that many of your readers are engaged in that line of work, and no doubt, in common with myself, they would be glad to learn something about that branch of the work.

We shall be glad to comply with our correspondent's request at some future time. Another letter which speaks of the features in the magazine which have pleased comes to us from Pennsylvania. The writer says in part:

Having been a constant reader of your magazine ever since it came out, I would like to say that it is work that any man ought to be proud of. Your work has been quite like an engineer's, not all of them though; some of them work for the interest of their fireman while others do not. Your work has been like the former's, always trying to better the minds of your readers. The articles by Mr. Willets are exceedingly interesting, as they describe the ways of others, of which I feel sure that we would not be any the wiser if we had not been treated to the publication that you may be justly proud of.

The same correspondent incloses a copy of "The Trials and Tribulations of a Round House Foreman," which we hope to present to our readers, at least in part, in some future number.

At the risk of seeming conceited we will quote one more letter of the sort that make an editor wonder if he can ever by any possibility live up to the high standard which some of his readers apparently have of him. This is the high standard one reader has

I have been a reader of THE RAILROAD MAN'S MAGAZINE since the first issue, and I like it so much I must say something in its behalf. I am a great reader of the monthly magazines, in fact, there are very few I don't see, but I can hardly wait until the 10th of the month for the R. R. M. M. to peruse its valuable columns, always interesting and something to educate and instruct you.

The short story writers are fine, the serials are excellent, and always up to the standard, and the editor's column is worthy of note. The honest manner of the unassuming and painstaking editor, in admitting his mistakes, cannot but be appreciated by any great reader of books. I think it one of the greatest and best in the country, second to none.

And so the collection of verbal roses must come to an end for this month. We can only say that we are in hearty sympathy with our friend who is opposed to waiting for the funeral to bestow all his tributes. If you have any wreaths, prepare to hand them to us now.

LARGEST PASSENGER LOCOMOTIVE.

THERE seems to be some doubt still as to what is in reality the largest locomotive in passenger service in the United States. Or, rather, perhaps, not so much doubt as a slight confusion of terms as to the various meanings and implications of size. For example, this communication reaches us from a friend in Pennsylvania:

In regard to the largest passenger locomotive, I feel justified in making a correction to Mr. C. D Wright's statement, wherein he states that the Alton engine has a somewhat greater tractive power than the Pennsylvania engine. Undoubtedly, the heaviest passenger-locomotive is that of the Pennsylvania, Pacific type, No. 7067.

But is it possible that the Alton engine develops a greater tractive power with 27,050 pounds less on the driving-wheels? No, regardless of the size of the driving wheels, cylinder dimensions, or steam pressure. No locomotive can record a greater tractive power than its adhesion will allow. Therefore, the locomotive has exerted its maximum power at the draw-bar when the cylinder power has overcome the tractive resistance, and any increase in cylinder dimensions or steam pressure, or both, would not increase the tractive power.

Correctly designed locomotives have sufficient cylinder power to slip their drivers. But here is a case: It has been ascertained that the coefficient of friction, under normal conditions, is 4.5; the Pennsylvania engine has 173,550 pounds adhesive weight, thus giving 38,566 pounds as the tractive power, instead of 32,000 pounds by the formula.

The "factor of adhesion" as given in descriptive articles of newly built locomotives vary greatly, but these factors are not the coefficients of friction, they are factors by which the adaptability of the locomotive to high speed, or otherwise, is made manifest, and are found by the well known formula, which formula determines the capacity of the cylinders, and not that of the locomotive.

Mr. Wright states: That "the Alton has a somewhat greater tractive power, but this is due to the difference in the size of the driving wheels. Had both engines driving-wheels of the same diameter, the Pennsylvania would develop the greater tractive power."

The coefficient of friction is not in the least dependent on the weight on the driving-wheels, nor their size, but is fixed by physical laws.

A Connecticut friend gets around to the size of engines after a few words about valve-gear and hydraulic rams, as follows:

I am an interested reader of your magazine, having had every number since it was first published. I like to read BY THE LIGHT OF THE LANTERN, and think I could answer some of the questions a little more clearly than I find them answered. In the present issue J. C. A. and T. W. W., Norwood, Ohio, ask about the Allen valve-gear for locomotives. They will find this described in McShane's "Locomotive Up to Date," published by Griffin & Winter, and for sale by dealers in mechanical publications.

The valve of which you speak in this connection is Allen. Note the E. Also in answer to H. E., Hartford, Connecticut. You say the pressure of the gage would be the same. You say "the eight inch would not do the work as easily as a ten inch," consequently, it would require a greater pressure on the eight-inch ram than on a ten inch, of course, and the gage would show a greater pressure for the same work done when the eight-inch ram was used because of the greater pressure required.

The area of an eight-inch ram is 502,656 inches and of a ten-inch ram is 78.54 inches, if I have not made a mistake in figures. This makes the ten-inch ram 1.3038 times larger than the eight. If a gage is made for an eight-inch ram and is used on a ten inch ram and the gage registers 25 tons total, the pressure is 1.5038 x 25 tons or 37.595 tons.

The pressure per square inch in these cases is the same, the total varying according to the ratio of the rams, the gages registering the total being made for size of ram with which it is to be used.

I read with interest the comparison of the "Largest Locomotive in the World." When the picture appeared on the cover of the August number I thought I would write, but supposed somebody else would. So I waited and at last it has appeared. I will mention that in the June, 1908, number of the *American Engineer and Railroad* is a tabular com-

parison of different types of locomotives, giving locomotives of fourteen different railroads which are heavier than the 601 Alton

Of course the term largest is somewhat indefinite, as they are differently proportioned. The second in weight is a New York Central engine, which weighs four thousand pounds more than the Lake Shore engine mentioned by your correspondent. It is much the same, however, the Lake Shore being one of the Central lines.

It is only fair to say, however, that the 601 was the largest at the time it was built, having the largest heating surface also, and being the first passenger-engine to have over 4,000 square feet. This is 151 feet more than the new Alton engines, but the boiler being smaller the circulation is probably not so good. The grate area of 601 is 54 square feet, having the modern fire-box built out over the trail-wheels; this is 21 feet more than the new ones, which have the narrow fire-box between the wheels.

The cylinders of 601 are 22 x 28, while those of the new engines are 23 x 28. The driving-wheels are 80 inches on 601. This was built with one other engine at the time, and the other engine had 73 inch wheels, which is the same as the new engine. 601 is illustrated in Twentieth Century Locomotives by *Railway and Locomotive Engineering*, which publication I have had for nine years, also the *American Engineer and the Railroad Journal*, which periodically publishes tables of comparison of locomotives. I have followed the progress of development in this journal from an engine of 75 tons to 134 in passenger service, and from 2,000 to 4,437 feet of heating surface.

Please don't think I'm criticizing anything in your magazine. I don't expect it to be as accurate as a technical journal, and I have to jog them once in a while, but if you can get any benefit from it, here it is. I wouldn't have written anyway if it hadn't been for the Allen link motion in case it might help out the engineers. I'm not a railroad man or an M. E., but am a skilled mechanic, tool maker, and all-around machinist, and my hobby has been locomotives. I have about thirty books on them and their appliances. If I wasn't so inclined I wouldn't be taking THE RAILROAD MAN'S MAGAZINE, which I like.

All of which goes to show that questions of size, etc., in railroading are not so simple and so easy of solution as they might appear at first glance.

A LITTLE HOMELY SURGERY.

THE following letter, signed "G. A. M." is self-explanatory and requires no comment from us.

I take much pleasure in reading THE RAILROAD MAN'S MAGAZINE, which is, I think, one of the best magazines on the market. I am, by the way, an ex railroader myself. I would like to express an opinion of one of the items in the DOCTOR IS ON BOARD department, November issue, in reply to S. T. T., mechanic, C. M. and St. P., who seeks relief for a bruised or mashed finger-nail. I am not trying to criticize the doctor's advice, but suggest this treatment for such cases where the finger or thumb is not smashed.

With the point of the small blade of a jack-knife, or the blade of a pen-knife, drill a hole down through the nail about the center of the bruise until the blood comes out quite fully, and squeeze the blood all out. It will sting a bit when the point of the knife gets through the nail, but only for a moment. Ten or twelve hours after, open the hole again and squeeze out any more blood that may have gathered; by doing this the pain will be relieved at once, you will feel it no more after twenty-four hours, and the nail will be saved nine times out of ten. The bruised spot will gradually grow out of the nail. I have one all but cured at the present time.

WHERE IS W. S. HACKETT?

MR. F. W. HACKETT, of Bakersfield, California, would be obliged if anyone could notify him of the present whereabouts of the relative whose name appears at the head of this paragraph. According to the description, Mr. W. S. Hackett is fifty-seven years old, five feet eleven inches in height, has brown eyes and brown hair mixed with gray.

He is of slender build, and can be further identified by a scar on the nose and a finger missing from the right hand to the second joint. He was last heard from eight years ago in Fort Worth, Texas, where he was brakeman from Forth Worth to Wichita Falls. If you know of his whereabouts will you communicate with us or directly with Mr. Hackett, of Bakersfield, California?

INSPIRATORS AND INJECTORS.

AT the risk of seeming to delve too deeply into purely technical matters, we will offer this month one letter which seems to be pertinent to our previous discussions of the injector problem. It is from a friend in far Montana who has noted our statement that there is no difference between an injector and an inspirator, and offers the following additional information.

As a matter of fact, most of the functions are the same. Let us take, for instance, a Hancock inspirator and an Ohio injector. In lifting water (priming) with an Ohio

injector the regulating (water) valve is opened and the handle pulled out to the first stop. In this action the steam from the steam supply-pipe enters the tubes in the main body and forms a suction in the water feed-pipe. Water then flows through the water regulating-valve and around the first tube.

The point now is this: The supply of water is entirely dependent upon the size of the opening in the water regulating-valve. When this injector is primed the handle is then pulled to the full extent. In this position water from the tank is delivered to the boiler. The overflow-valve is left open.

Now, with a Hancock inspirator the regulating-valve is opened and steam enters the lower chamber and forms a vacuum in the water-pipe by forcing the air out of this chamber, the water supply being entirely dependent upon the amount of steam used in the lower chamber to raise the water; the more steam the more water.

When the injector is primed, the handle is pulled out the rest of its travel and water enters the boiler.

The overflow-valve is closed, *i.e.*, by the last named position of the handle. Therefore, it is seen that with an Ohio injector the water supply is entirely dependent upon the size of the opening in the water-valve; the Hancock inspirator has a water-valve, *i.e* the opening is of an unchangeable size, the supply depending upon the amount of steam used to lift the water.

When the regulating-handle of the injector is turned, the size of the water-opening is affected; with an inspirator the supply of lifting steam is affected. When an injector is working, the overflow-valve remains open, whereas with an inspirator it is closed. The inventor, Professor Hancock, regarded his invention as in the nature of an inspiration, hence the name "Inspirator." It performs the same duty as the injector; it injects water into a boiler.

A FEW SLIGHT ERRORS.

WE have long since ceased to regret the occasional mistakes into which our ignorance or our haste or something else betrays us. In fact, there are times when we are almost inclined to be glad because of the additional opportunity they give us to hear a little plain talk from our readers. A California ex-engineer has a little fault to find with one of the illustrations of the OBSERVATIONS OF A COUNTRY STATION-AGENT, in our September number. He also has a few criticisms to offer on other matters. This is the letter:

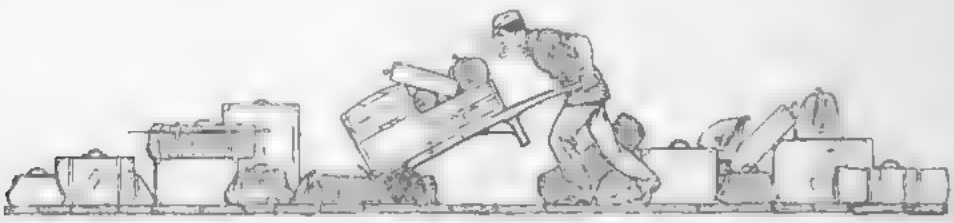
You evidently got things mixed in the September number in reference to the fireman, the kid, and the "merry widder." While the fireman was the true hero in saving the kid, the man lost sight of "the man with the hoe," and grabbed the man with the set-screw wrench and oil-can; even the kid went back on its rescuer and started in to sample the sacred oil.

On figuring up the long run on the Santa Fe, mention is made that they run over S. P. track, Bakersfield to San Francisco; this is a mistake. Santa Fe runs over S. P., Mojave to Bakersfield, about 68 miles, but over their own track Bakersfield to S. F., over 300 miles.

On speaking of runs of P. R. R., New York to Pittsburgh without stop, if my memory serves me right, they did make a continuous run between the two points on the occasion of the Jarret-Palmer theatrical special. Hank Small won the diamond badge, the prize awarded for the longest continuous run for one man, his run including the route over the Sierra Nevadas. The writer held one of the reserve engines stationed at intervals along the S. P.

You quote death of one of the train men at Pomeroy on the P. R. R. in their first attempt to make a through run from New York to Pittsburgh. In the days of the old Philadelphia and Columbia R. R. that station was called Chandlers, near which place was located the "old swimmin' hole" of the writer's boyhood, and about one mile east of Parkesburg, where the shops were located.

As to the fireman, the kid, and the merry widow, we have no defense save that perhaps the hero snatched up the oil-can and the screw-wrench on his way past the engineer's side of the cab in order that he might present a more imposing appearance before the camera. We regret that there is still a misunderstanding of our statement in reference to Santa Fe rights on S. P. trackage between Bakersfield and San Francisco. It was never our intention to give the impression that S. P. tracks were used for that entire distance. At the time the question was answered we were unable to secure exact information as to the precise amount of trackage so used.



The Day's Work

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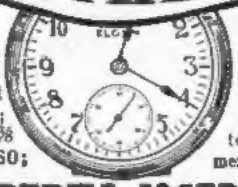

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